ms. 51.

15604
15766

Field Book

of

Willis Linn Jepson

If lost, please return to
W. L. Jepson, care The Herbarium,
Royal Botanic Gardens, Kew,
Surrey, England. — July, 1930.
And Receive Reward !!

Kew Herbarium, England.

— Mr. A.S. Skan, the ever helpful and genial librarian here at Kew, said to day that a copy of the Botany of Beechey's Voyage was sold at Christies in London a few days since for a matter of £ 50!

— Private herbaria. Mr. Skan also says that the herbarium of Sir William Hooker accumulated at Glasgow University was his own personal possession and that it, his library and correspondence, with was brought with him to Kew where it remained his personal possession. Bentham (Geo.) made a gift of his library and herbarium to Kew (in 1851), but the herbarium, library and correspondence of Sir Wm Hooker was not acquired until after his death, when government paid £ 10,000 ∞ pounds for it!!

— Dr. A.L. Grant of the Huguenot College, Wellington, South Africa, is here, and has just brought around Dr. Robt. E. Woodson, Jr., of the Missouri Botanical Garden, a young fellow who has worked on Apocynaceae. He said that of E.I. Greene's, say sixty, species of Apocynum it had been possible for him to keep only two or three. However, he added, as Professor Greene was being discussed, that Dr. Greene was a very fine man, that he had a right to his own conception of species, and that Marcus Jones' attacks upon him were extremely scurrilious. It seems that Jones was at Washington shortly after the death of Mrs. Jones and Dr. W.R. Maxson spoke to Jones a few words of

formal sympathy, whereupon Jones burst out: "Do not say anything like that. This is the first time in twenty-five years that I have had any peace." Maxson was much astonished.

Dr. Grant says that on the occasion of her visit to Notre Dame University, Dr. J. A. Nieuwland said that the Greene Herbarium was a white elephant on their hands. The point is this: Dr. Nieuwland has really quit botany and gone into chemistry and there is no one, therefore, working with the herbarium or making any use of it. Dr. Nieuwland remarked that it occupied space much needed for other purposes and that in addition under the conditions of the gift, it was

impossible to make any loans. It would seem, - therefore -, that the bequest might be set aside under court order. I can scarcely conceive that anyone would contest the matter. - July 4, 1930. - Dr. Grant went on to say that the negro servant whom Greene had employed to serve him as a valet had contended that Greene had not paid him for his services and had attached an unmounted collection of 14,000 specimens in the attic, that is caused a conflict to run against them, for a bill of say $1400.00, at least a very considerable sum. This part of Greene's Herbarium did not, then, move to Notre Dame with the main collection. Dr. Woodson said that Dr. Nieuwland became much concerned as to invest-

destroying this collection and had gone to Washington with cufferes and had so played upon the old negro's long attachment to Prof. Greene that he (the negro) allowed the collection to be taken away, although previous to that he had refused to release it. There were those who thought the negro's claim was fabricated, but Dr. Nieuwland said that for long this negro valet had refused to accept any money from Dr. Greene, but after Greene's death he felt entitled to be paid from Greene's estate — July 4, 1930.

— Follon. This name is included in the Oxford Dictionary under the alternative spelling Foyon, but citing "Follon, Mex.-Sp." as a native name for Robinia arbutifolia.

— C. A. Smith, of South Africa, who is working here at Kew, tells something of the beginnings of South African Botany. As he proceeds he finally remarks, anent his frequent comments on Burman*, and the pre-Linnean workers there, that some called Burman the father of South African Botany, but he did not think so. "Who do you think is the father of South African Botany"? interjected Dr. Grent. "I don't think there was any father", he replied. "I think it was a sort of "polygamous" business; several were concerned".

He indicated the late beginnings of Californian botany. "Ah", he said, "you are fortunate. It saves you much

* cf. S. Afr. Jour. Sci. 27: 43.

trouble'!

Duent the plants of Thaddeus Haenke, Dr. Grant remarked that the Missouri Botanical Garden has Haenke plants acquired with the Bernhardi Herbarium, the original nucleus of the Missouri Bot. Herbarium, purchased by Henry Shaw at the recommendation of Dr. Geo. Engelmann. — July 5. 1930.

— Collecting. It is well to remember that not so very long ago collectors did not give exact stations on their labels. The range was regarded as the important thing. Notice:

Distributions of L. F. Henderson.

- Ribes lacustre var. parvulum Gray, Shady rills, Oregon & Wash. no. 321.
- Ribes laxiflorum Pursh. Mts. Hood and Adams. No. 323.
- Ribes bracteosum Dougl. Portland

ore. Frmt Lost-Lake. No. 322 (one number for two collections from different localities!).

J. J. Lemmon also gave the range frequently on a label, but no station.

Contrast S. B. Parish who had such good scientific instincts. He nearly always gave an exact locality.

C. A. Smith calls my attention to Pettiver's little volume of early day botany, relating to South Africa. Pettiver distributed sets of South African plants which he numbered! He was the first, perhaps, to number specimens, though Smith thinks Oldenland also numbered.

— C.A. Smith passed me just now near the Herbarium. He is trying to get the best knowledge in a short time out of F. A. Rodger's collection of South African plants before it goes to Geneva. Rodgers was a sort of religious missionary or bible propogandist. He travled in a little railway car which was unhooked from a train at a siding or little station and here he remained for ten days or two weeks before being moved to another place. During these periods, as a recreation from his work, he collected plants under extremely advantageous conditions and made a large collection which now contains some 200 types. The father of Rodgers knew a bit about botany and passed the divine fire on to his son. The son stored the collections at Kew while

it was awaiting sale. Now it has been bought by Geneva, and Smith sees preparation for its departure with regret, almost despairingly, because it contains so much of interest to him. — July 8, 1930.

— This morning, seeing me in the library, Mr. A. D. Cotton, the Keeper of the Herbarium, said most pleasantly: "Are you getting along all right? Are you being looked after? Sprague is attending to you isn't he?" I at once assured him that I was perfectly happy — and that it was for me a great blessing to be for a while in a spot where there were no interruptions as is constantly the case at home. — July 9, 1930.

— Dr A.S. Grant says Dr. Wm Trelease fell out with the Board of Trustees of the Missouri Botanical Garden because the Trustees objected to the giving of all his time to research. He neglected the administration of the garden, while the Herbarium became chaotic. Even in all these years Dr. Jesse Greenman as Curator of the Herbarium has not succeeded in getting all of it in order. It seems that Dr. [Geo. T.] Moore, ranking first under Dr. Trelease, cultivated the good-will of the trustees, undermined Trelease, and ~~so~~ stepped in as Director when Trelease went out. At least this is the way Trelease views it.

Dr. Greenman has been unwell for years. Has had several surgical operations and is now going on half-year leave. He is coming to the Congress. Dr. Grant further says that Dr. Karl McKay Wiegand and Professor M. L. Fernald have fallen out (cf. my record of Wiegand's account of Fernald, F. B. 44:160).

— H.S. Fawcett of the Riverside station, California, is here. He has been around the Mediterranean ↑Citrus during the winter, on the matter of citrus diseases.

— M. L. Fernald of the Gray Herbarium, with his helper, Bayard Long, has arrived here.

— DeCandolle, Prodromus, V. 14. The Kew copy has the legend written on the title page:

"pp. 1–492 (1856).
pp. 493–706 (1857).
[vide Flora 1858, 120.]"

Wisley, Surrey, England

No. 15,607. Lotus uliginosus Schk. Open woods, Wisley

No. 15,608. Echinodorus (Alisma) ranunculoides (L.) Engelm. Wisley Pond.

No. 15,609. Veronica scutella L. Wisley.

No. 15,610. Hypericum elodea L. (To UC to mt) Moist border of Wisley Pond.

No. 15,611. Erica tetralix L. Wisley Pond.

No. 15,612. Potentilla tormentilla Neck. Open woods, Wisley.

No. 15,613. Lotus corniculatus L. Open woods, Wisley.

No. 15,614. Peplis portula L. Wisley.

No. 15,615. Erica cinerea L. Wisley.

No. 15,616. Agrimonia Eupatoriam L. Wisley Pond, 1 mi. E.

No. 15,617. Circaea lutetiana L. Shade, Wisley Pond.

No. 15,618. Galium verum L. Open meadows near Church Cobham. Fine clusters.

No. 15,619. Radicula sylvestris Druce. Stream side, near Church Cobham.

No. 15,620. Lapsana communis L. Wisley Pond

No. 15,621. Vicia cracca L. Church Cobham

No. 15,622. Ballota nigra L. (To UC to mt.) Black Horehound. Hedges, Church Cobham.

No. 15,623. Myosotis caespitosa Schultz. Wisley Pond.

No. 15,624. Pinus sylvestris "Scotch Fir." Wisley.

Wisley, England

Went today to Wisley from Kingston on a coach top. It was most delightful going with Dr. T.A. Sprague of Kew on this excursion which he had arranged. It is beautiful country that we travel through. We get down near Wisley Pond and circle the pond, collecting various rare plants. See nos. 15,607 et seq. Thus we worked through the woods and finally came out on a road through the forest. Down this until we struck a stile over a fence, leading to a path across a very beautiful meadow. It is a wonderful clear sunny day, equable temperature, no wind. Hundreds of people are in the fields, having holiday — in every field as we pass over the little streams and go on to Church Cobham.

(See p. 126.)

Sprague goes into the old church with me for a moment, but will not leave his dog tied outside. I do not remain long in the church which has some points of interest — a list of vicars reaching back to about 1450! A tablet in memory of an East India Company director, about 1780. Then we go into a little tea place for tea — and talk — and so, on home to Sprague's at Kingston where we have Sunday evening supper with the family. — The next Sunday I went alone to Hampton Court, walking nearly all the way from Kew. It isn't far. At Kingston I crossed the river Thames to Hampton brick and enquired of a dozen persons as to the memorial tablet to Timothy Bennett — shopkeepers and the like. Not one could tell me,

(See p. 19)

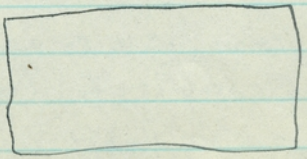
though a chap said it might be at the end of Sandy Lane. I went on in that direction. Seeing a respectable looking burger going along, I asked him. Ah, yes, he said, only a hundred yards up the street; he would show it me*, at the entrance to Bushy Park. And so I found it:

T. B.

1756

"I am unwilling to leave the world worse than I found it."

(medallion bust.)



a cobbler at his last hammering; a cat sitting on the bench by his tools.

* See p. 31

In Memory Of

Timothy Bennet

Shoemaker of Hampton Wick

By whose efforts the adjoining path was preserved for the use and enjoyment of The Public

Timothy Bennet spent his last savings defending the right of way through Bushy Park. All the paths that Sprague and I followed a week ago, through green tree-bordered meadows and flowery fields are old, ancient rights of way. It was wonderful a week ago. It was like an endless series of little May

Day outings. Sprague says that the Royal Gardens at Kew originally consisted of two separated north and south plots of land connected by a lane. That the King, say 150 years ago, wanted to make the two plots into one by closing the lane, that it required an act of Parliament, and that the act was very reluctantly passed. Sprague further says that today it is almost impossible to get any right of way closed, and if the Kew closing were asked for today it would not be granted.

I go on through Bushy Park, past the noble avenue of Horse Chestnuts, Aesculus Hippocastanum, and Limes (Citrus aurantifolia) to Hampton Court where I see the great palace rooms occupied by Henry VIII and his successors, now hung with old-time paintings.

— On Thursday, July 17, I go down to Sutton's Seed Trial Grounds at Slough at the invitation of Mr. A. P. Balfour, to see his breeds of Eschscholtzia. The different strains occupy different beds:

1. Golden petals above, deep poppy below.
2. True crimson petals.
3. Pink below, white above
4. Lively pink, almost like our Godetias
5. Bronze-gold.
6. Double bronze.
7. Cream.
8. White, very pure.
9. Queen of the Buffs (somewhat of a buckskin color).

The above were the main ones I think. They had been procured, for the most part at least, by crossing. He also had some of the truly annual kinds, which he called Eschscholtzia tenuifolia. He says he is not able to cross these small-flowered annual sorts with the large-flowered kind. The large-flowered kind, though perennial, is treated as an annual for horticultural use in England. The plants stand the cold well, but not the kind of wet usual to an English winter.

He had a lot of Godetias of many colors. These are derived from Godetia amoena, lindleyi, bottinea — and are very showy. One of the most remarkable is Bijou, clear white with crimson spot. It is an extremely lively animated sort of thing. Then he has dwarfs, low rounded plants completely covered with bloom, or varying to stocky or dwarf strains — all derived from Godetia grandiflora Lindley (G. whitneyi). Balfour says Godetias are favored for cut flowers; put into water they will flower for two weeks until the last bud in the raceme has opened.

I return to the Eschscholtzias. The Geisha is crimson on under side of petal and deep gold above. There are variants of this with crumpled or crinkled edge, and also fluted petals.

One bed of the Eschschol-

Eschscholtzias I feasted my eyes on many times. It was a large bed of mixed plants. The colors were brought into striking contrasts; they were so lively, so pure, so boldly true, so fresh, so pure — not rich or deep or intense or pastel colors — but fresh, lively and animated — the crimson against the white and the pink against the gold or the yellow. It stirred memories of old-time holidays, of days of outing and festival, of picnics of yesteryear and all May Days that ever were.

Let me not forget, too, in the pure Eschscholtzia beds there was a Chamois color.

Of the godetias there were of course double ones, and in particular crimson with white tips. The pinks are very fine. The ivory-whites striking.

Of other plants may be noted:
Venidium (Compositæ), S. Africa.
Brachycome. Swan River Daisy.
Viscaria. Pink Dwarf.

I found Mr. A.P. Balfour a most delightful and likeable gentleman. He took much time and pains in going about with me all over the properties. When I was ready to depart, he insisted on my stopping to take tea. He told a bit about his experiences in the Great War, in showing hospitality to the French officers when camped near each other. He is a graduate of Edinburgh Univ.

— came to call on me in the Herbarium, Kew, Fred M. Reed of Riverside, Calif. He said: "The new Botanic Garden near Los Angeles has gone under. It was a real-estate scheme and real-estate has collapsed, everywhere about Los Angeles, in the last three or four years. It couldn't well succeed on that sort of a basis." (See p. 173).

Reed* described himself as a cousin of Robt. Pendleton's mother. He says Pendleton is now teaching soil science at the Los Banos Agricultural College in the Philippines; and is executor of the estate of B. F. Baker. — July 24, 1930.

* Reed has a high nasal voice which reached quite up to the top of the third story of the herbarium wing.

— Cont. from p. 25. I went down to Slough by motor coach. These new road coaches are very comfortable and very prompt. On the Chiswick High Road, a little beyond Kew Bridge, there has been cut through westward a fine broad highway with broad parkings — the "Great West Road," going clear to Bath and I suppose to Bristol. I got off at Uxbridge Road on the near edge of Slough and walked north one-fourth mile to the Seed Trial Grounds. I cross the Great Western Railway track by the overhead crossing and find the Sutton grounds next to the railway. They have a fine lot of Nemesias, brightly colored Cape Scrophulariaceae, and also some plants of Veronicum, also South African, a somewhat singular Comp-

Stonehenge, England

osite. He also had a most singular woolly Verbascum, I think from Asia.

— Went on an excursion to Stonehenge; railway from Paddington to Lavington, thence by motor coach on a wide circuit, passing over the downs of Stonehenge and through many vales set with charming villages, thatch-roofed cottages and lovely gardens. Stonehenge is remarkable enough but is, since one has heard about it all one's life, a bit disappointing. However as one studies the circles and the stones, the whole grows upon one and the height of the stones grow, too, in the impression made on the mind. I was very fortunate in having in the seat next me in the coach a gentleman

who turned out to be well-informed on the English countryside, besides being cultivated and well-read in general: A. G. Southcombe, M.D., Member of the Royal College of Surgeons and so on. He expressed the view that the great stones of Stonehenge, being no part of the country rock, had been brought down from the north of Britain in the Ice Age. More interesting, since he is no geologist, are his comments on the countryside: the signs all through the West country: White Hart Inn, Drum Cow Hotel, Red Horse Inn, are, color, relics of the wars of the Roses, the white rose of York, the red rose of Plantagenet. Knowledge, tradition even of these wars no longer exists amongst the people, but these ancient signs have come down. He also

called my attention to a field of white pigs. We are running through Berkshire! And he told an especially amusing story of Prince Edward, later King Edward VII, who, entertaining the Shah of Persia or some other Oriental potentate, took him to see the Derby race on Epsom Downs. The Shah could not understand so much fuss, so much preparation, so much to do over racing horses: "Do not the unbelievers know that one horse can run faster than another?" And the brevity of the race astonished him very much. He suggested to His Royal Highness that two of the horses legs should be hobbled in order to make the race longer and more interesting. This thoroughly shocked Lord Somebody or

Other, the aristocratic President of the English Jockey Club, but the Prince was heartily amused. I, myself, when seeing the Derby run in 1926, noticed its exceeding brevity.

– California Oaks. See article: "Oaks of California", Garden 3:17 (1873), anon.

— Umbellularia californica and Sequoia sempervirens. Rich paneling of Laurel and Redwood in Capitol building at Sacramento. Garden, 6:382 (1874).

---

* Cont. from p. 18. This person is A.E. Miles, 66 Cedars Road, Hampton Wick. He knew the tablet because being born in Hampton Wick. He invited me into his house for a cup of tea and I accepted; being pleasantly entertained and meeting his wife.

– went to tea July 24 at the home of Miss M.L. Green in Lichfield Road, Kew. Miss Green and her sister Mrs. White live together. Mr. and Mrs. I. H. Burkill were there and also Mrs. Burkills' sister.

Burkill told me about Bentham: Bentham was a man of great precision and regular habits. He lived at South Kensington. In the morning he got into his carriage and pair and drove to Kew, arriving promptly at ten o'clock. Promptly at 4 o'clock, regardless, he took his carriage and pair and drove back to South Kensington. In the evening he spent his entire time writing up the notes he had made at Kew during the day. [Now it seems to me

that here is the kernel of the whole matter. Here we have an explanation of such a lapse, in all probability, as the matter of the hairy brush borne by the sterile filament in Pentstemon corymbosus Bth. For discussion of this point see "Types and Original Citations", p. 161-163. Dr. A. B. Jones tells me, too, that Bentham "just couldn't see hairs" and cites the types of Nemesia and ? Diascia.]

Burkill went on to say that Bentham at table ate with the most marvelous rapidity and that no one could keep up with him.

Bentham when at the Herbarium worked in the top room (3rd floor) where Dr. Stapf now works.

Reference was also made to Mr. N. E. Brown who is now 80

years old. He comes to the Herbarium every day, is quite well, his faculties are as keen as ever, save that he is a little deaf — perhaps more than a little — though one can converse with him. He has been working on Mesembryanthemum for a long time. He believes new generic concepts are necessary in that group and has made 120 genera. I am sure that 120 is right because I asked Miss Green to repeat the statement; but the segregation may involve more than the old genus Mesembryanthemum. — In some way proof-reading, came up; perhaps as an explanation of mistakes and Burkill remarked: "Oh, well, Ridley never read proofs anyway!" replying to Miss Green.

— One of the usual experiences in dealing with old specimens is not merely that they are scanty, faded, aged, (deteriorated often) - but the paucity of data. I have just been looking up Gentiana humilis Stev. of Asia. The labels mostly give merely: Siberia; Altai. Caucasus. Scantiness of geographic as well as habitat notes. — Kew herb. The specimens of G. humilis, moreover, are very poor, very small, fragmentary or scanty.

— The Director of the Garden, Dr. A.W. Hill, invites me to luncheon at the Director's House, where I meet again Miss Hill, his sister. Fernald, M.L., of Harvard, is also present. We have a very pleasant time and agreeable talk.

— Dr. John Phillips I meet here. From South Africa. Cont. p. 195.

No. 15,625. Lotus uliginosus Meadow. Byfleet.

No. 15,626. Trifolium hybridum Meadow. Byfleet.

No. 15,627. Melampyrum pratense L. Fields. Byfleet.

No. 15,628. Centaurium nigrum L. Fields. Byfleet.

No. 15,629. Aegopodium podograria L. Low wet spots. Byfleet.

No. 15,630. Convolvulus sepium L. By canal. Byfleet.

No. 15,631. (Discarded, insect damaged) Eupatorium cannabinum L. By canal. Byfleet.

No. 15,632. (To U.C. for mtg.) Scutellaria galericulata L. Canal. Byfleet.

No. 15,633. Corylus ~~avellana L.~~ cornuta var. californica Byfleet.

No. 15,644. (To UC for mtg) Stachys palustris L. Byfleet.

No. 15,645. Lysimachia vulgaris L. Wisley Church.

No. 15,646. Lythrum Salicaria L. Wisley Church.

No. 15,647. Scirpus ~~sylvaticus L.~~ microcarpus Presl. Wisley Common.

No. 15,648. Centaurea cyanus L. Wisley Church.

No. 15,649. Crepis capillaris (L.) Wallr. Wisley Church.

No. 15,650. (To UC to mt.) Stellaria aquatica Hook. Wisley Church.

No. 15,651. Gnaphalium uliginosum L. Wisley Church.

No. 15,652. Radicula palustre (DC.). Canal. Byfleet.

No. 15,653. Sparganium erectum L. In water. Wisley Church.

No. 15,654. (To UC to mt.) Geranium pusillum L. Wisley Church.

No. 15,655. (To UC for mtg) Teucrium scorodonia L. Wisley Common.

No. 15,656. (To UC to mt) Calluna vulgaris Hull. Wisley Common.

No. 15,657. Erica cinerea L. Wisley Common.

No. 15,658. Scirpus conglomeratus Wisley Common.

No. 15,659. Erica tetralix L. Wisley Common, near the Portsmouth coach road.

No. 15,660. Oenanthe fistulosa L. Wisley Pond.

No. 15,661. Helosciadium inundatum Wisley Pond.

No. 15,662. (Discarded) Hypericum elodes L. Wisley Pond.

No. 15,663. Littorella uniflora Asch. Wisley Pond.

No. 15,664. Polygonum ~~coccineum Muhl.~~ ~~amphibium~~ OK L. Wisley Pond.

No. 15,665. Hydrocotyle vulgaris L. Wisley Pond.

No. 15,666. Scutellaria minor Huds. (To U.C. for Mrs. [illegible]) Wisley Pond.

No. 15,667. Sparganium simplex L. Wisley Pond, in water

No. 15,668. (Alisma) Echinodorus ranunculoides. (L.) Engelm. Wisley Pond.

No. 15,669. Senecio jacobaea L. Very common in the fields, forming colonies.

No. 15,670. Genista tinctoria L. Woods. Effingham.

No. 15,671. Centaurium umbellatum Gilib. (Erythraea centaurium Pers.) Pastures. Effingham.

— Eight of us went on a field excursion today, to Byfleet by train, thence afoot. We had scarcely started off from Byfleet when one of the men cried: "Look here, Jepson"! It was a shiny professional brass door plate with my own family name on it. The name is a bit unusual and so all the men came back

to look at it: "M. B. Jepson, M.D., Surgeon.

On this trip were Dr. T.A. Sprague, the botanical leader of the party; V. S. Summerhays of the Kew Herbarium; C.V.B. Marsgrave of the Kew Herbarium; Professor M.L. Fernald, Harvard; Bayard Long of Philadelphia; Fernald's son; Dr. J.M. Dalziel of the Kew Herbarium; and myself. We had good botanizing through the fields to Wisley Church and Wisley Common. Wisley Church is a quaint, obviously ancient with a Norman doorway, standing quite alone in the countryside save that an ancient brick-timbered and very interesting farmhouse stands near it. We spent much time on Wisley Common — a very fine botanizing ground; and worked along through the woods to Wisley Ponds. On the way a question arose re. some mints and I heard Dr. Sprague cry to Fernald: "If you want to go mad, study mints", by which he referred chiefly to Stachys, I take it. One of the finds that interested me most was Littorella uniflora of the Plantaginaceae, an aquatic on the edge of Wisley Pond. Think of the number of widely separated plants systematically that have this habit, aquatics all: Subularia aquatica of the Cruciferae; Isoetes; Lilaea;

We had tea at Wisley Pond, botanized around the pond, struck through the woods towards Effingham, nearly losing our way in the woods. The trees on the edges

of fields were very fine - I enjoyed this experience - the great elms, usually feathered below along their trunks; the great oaks; a few chestnuts. Up the great trunks of the oaks went the stems of the English Ivy.

I saw stems of this (Ivy) species that were 2 to 3 inches in diameter, grown fast against trunks of forest trees.

This day at several different churches in the country I heard the church bells ring. They have a different tone or mode from those of London, or at least of such as I have heard before. I like very much the poem of the Green Gnome who was rescued from the spell put upon him, rescued by the maiden on the palfrey white as milk who

in pity spoke the sweet Christ name and so restored him to a fair and comely youth. Thus back they gallop to the kirk, he before and she behind, while the kirk bells ring. Many times I have heard the church bells ringing in city and country in England, but not until this summer did I hear the village church bells, at Byfleet and at Amesbury, answering to the Green Gnome, in the lilting lines of which one can hear the bells with a joyous cheery sound, as well as the patter of the horses hoofs on the hard road. In quiet country places, as I say, where there are meadows near at hand with cattle grazing in them, and thatched cottages and little gardens all aflower with stock, marjoram and daisy.

Gravetye Manor, East Grinstead, Sussex, England, Aug. 3, 1930.

I went to day to Gravetye Manor, East Grinstead, Sussex. There was a tremendous crowd at the Victoria station but I succeeded in getting past the booking office in time for the train. From East Grinstead I walked through the charming Sussex countryside to Gravetye Manor; and was given a charming welcome by W. Robinson, my old-time friend. He is now 92, but does not look it. None of the marks of extreme age, or of unlovely old age mark his countenance. Of course he is gray, but his face is full, his skin very clear and full of color. He is very proud of his plantations of coniferous trees: he has Picea sitchensis 30 years old, 75 ft. h. and 12 to 18 in. through. He has Tsuga heterophylla Sarg., a fine stand of it. He has Abies nobilis, say

25 ft. high, some of the trees with cones in the top. This tree was to me highly interesting for another point. On the main axis and down to breast-high or perhaps lower the old leaves are largely persistent and closely appressed to the trunk !! This feature was called to my attention by the head forester of the estate, E. Markham. He is a highly intelligent very good-looking young man. I remembered him from the time that I was here before and shook his hand warmly. (See p. 202.)

Also, still at Gravetye was Miss Gilpin*, the companion-secretary. She remembered me, as I her. She is a very efficient woman. The name I may not have right. But, the staff take excellent care of Mr. Robinson. He is now taking his ease, getting out no more books. Also at Gravetye

* See p. 194, at middle.

East Grinstead, Aug. 3, 1930.

as a guest was a Mr. Bearnish, an Irish gentleman from Cork, witty, fluent, good-natured, full of highly humorous anecdote. How he entertained us at tea! He has been to many places and knows many persons, such as Sir Thomas Lipton and various other public figures*. He gave his definition of a gentleman as one who could do anything, who need not be held back for fear of social disfavor; while those who will not do various things for fear of the public, who hold aloof from this or that, are placed in a fake position, are not sincere and direct. Like most Irishmen he has a warm heart. Cried he of a certain man: "He has a genuine enthusiasm; I like him for that."

* He had met C. P. Huntington.

Kew Herbarium, Aug. 6, 1930

R. Kent Beattie of the U. S. D. A., freshly back from the Far East, where he has been for two or three years searching for blight resistant chestnuts in China and Japan. In one year he collected and sent home to Washington in cold storage 125 bushels of seed, the next year 128 bushels of seed. These are now being grown as seedlings at the Department's nursery near Washington and transplanted into the woodlands of Virginia where the blight is rampant.

Beattie is following up the footsteps of Robert Brown of Lampster along the Pacific Coast. It seems, apparently Beatty so intimated, that Brown was the first to see Picea Breweriana.

48 It seems that in addition to the more well-known articles which Brown wrote, he also put in The Farmer, an English paper, notes of his travels in the west, and Beatty has dug these up in the Museums storerooms of newspapers at Hendon. — Last Thursday, July 31, appeared at the herbarium Charles Piper Smith. He has been working on Lupinus type specimens, taking photographs of them with a small camera. His negatives are only about 1½ × 2 in. or a little less, but are so sharp as to lend themselves readily to 5 × 7 enlargement. Smith has been given a private room at the herbarium and on his arrival looked me up and asked me to come up, saying he wished to talk with me. He

49 is almost distrait, having received news of the death of his little girl (about 7 years old) and only child. The flow is further complicated by the fact that there are temperamental differences between himself and wife. He said that for many years, — I think he said five or six years — he had conscientiously tried to bridge the gap between but he simply could not get across. Evidently he took refuge in his Lupin studies which did not help matters any. He is torn by doubts as to whether he ought to return at once or wait for his regular sailing day one month hence and in the meantime finish up his work here. He learns that his wife has gone to pieces. He talked perhaps for two hours,

pouring out his troubles fully. I encouraged him to talk because it was clear that it would give him great relief from the strain he is under. There are those who bury their grief away, but Smith is exactly the opposite of this type. He relieves his mind in this way. There are two letters from his relatives which he hasn't opened, so finally, feeling that he has pretty well relieved himself, I leave him. He now opens his letters, finds that Mrs. Smith is violent, decides to go home at once, and secures passage for the next day at Liverpool. Smith is a warm friend of LeRoy Abrams and Alice Eastwood.

—

Kochia
– (Bassia) hyssopifolia Boissier, Fl. Orientalis, 4: 926 (1879). Salsola hyssopifolia Pall. Ill. Pl. 44, t. 36 (1803). Echinopsilon hyssopifolium Moq. in DC. Prodr. 13: 135 ( ). There are many spms. of this species here at Kew; they differ very much in habit and amount of pubescence; the foliage leaves of the inflorescence, perhaps better to say foliage bracts and the spikes are, however, fairly uniform; and all which show fruits exhibit the slender hooked spines which appear to characterize the species. There are many other species represented in Hb. here, but none show spines of this kind, except K. muricata in which, however the spines are straight. My material, H.L. Bauer, Bakersfield,

and J. T. Howell, Los Banos, match well enough with the Kew series of Krokia hyssopifolia Bois. A. R. Horwood, who has given attention to Chenopodiaceae, says that until the whole family is set right again, the name should be Echinopsilon hyssopifolium

– I find that Kew does loan herb. material sometimes! Sprague says so. In particular Crepis, the whole of it, was loaned to E. B. Babcock, Berkeley, who returned it, in fearful shape. This loan was made at the instance of Dr. Hill, the Director (cf. Men and Manners*, v. 4, p. 151). Will I told Sprague that I knew what happened. Babcock is no systematic botanist and does not know how to handle or take care of herbarium sheets.** Then he "played them up" to his assistants and graduate students, all of whom handled them in a careless and miscellaneous way.

*= Jepson, Private Journal. | ** See p. 187

– Today I go to Oxford for the week-end with the Days. Dr. Day J.B. meets me at the train and takes me on a wonderful drive through the Cotswold Hills. We are in high country for the beginning of the drive with extensive views over the river lowlands. Then we go down amongst the villages lying in the valleys, mediaeval villages with many a thatched roof here and there. At Burford is an especially interesting village church. For the place it is large, like a small but simple cathedral. The niches in the walls over the entrance door to the nave still hold their ancient statues, but all those representing saints had their heads knocked cleanly off by Cromwell's soldiers! On this trip we examined an ancient monument, the Rollright Stones, a Druid Circle at 2 mi. n. of Chipping Norton.

Oxford to Seven Barrows

The next day, Sunday, after church and dinner, all of us, Dr. and Mrs. Davy, Mrs. Davy's sister Miss Florence Bolton and myself went in the car to Seven Barrows, the early British burial mounds which are so very interesting. One of the mounds was especially good botanizing and here I collect:

No. 15,672. (To UC to mt.) Arenaria serpyllifolia L. A somewhat delicate caryophyll.

No. 15,673. Campanula glomerata L. A fine dark blue flower, making a beautiful show on the barrow.

No. 15,674. Odontites rubra Bartsia odontites Huds.

No. 15,675. Centaurea scabiosa L. Very showy purple fls.

No. 15,676. Serratula tinctoria L. Very inconspicuous.

Aug. 10, 1930.

No. 15,677. (To UC to mt.) Cirsium ~~a candelabrum~~. A very low thistle in the grass, quite common on these chalk hills. Seven Barrows.

No. 15,678. (To UC to mt.) Carlina vulgaris L. Just on the edge of the backbone of the "White Horse".

From the Seven Barrows with its open country we soon came to the top of the ridge, stopped the machine and climbed to the top of King Arthur's fortified camp, a circular hill with a moat about it. From here is only a short distance to the "White Horse" cut out of the green turf to show the white chalk beneath. It, the horse, makes a spirited figure which can be seen for a long distance over the country side.

This evening I was invited to dinner at "Herbarium House", the residence of Mr. and Mrs. A. D. Cotton, where the guests were most pleasantly and informally entertained. E. D. Merrill was there and said: "When I went to the New York Botanical Garden as Director I feared that there might be difficulties on account of Dr. and Mrs. N. L. Britton living right by the garden and perhaps wishing to still direct affairs. But I am happy to say that nothing of the sort has happened. My changes have been taken in the best part. This was especially gratifying in view of Mrs. Britton who is very emphatic and outspoken.

Some years ago a chap by the name of Anderson was working at the N.Y. Bot. Garden. In the course

* In the Garden, fronting on Kew Green.

of an experiment which he was conducting a sealed glass-tube without air fell to the floor and broke. The tube had been heated and on breaking some rice-grains which it contained suddenly inflated. Anderson reported this to Dr. Britton simply as a curiousity; but Britton said to him: You had better look into that a bit. It is probably a matter of importance to these cereal companies. So, get a patent on it". Anderson got a patent on the process, sold the manufacturing rights to the Quaker Oats Company and draws his royalties. Out of appreciation for what Britton did for him he has given the New York Botanical Garden the sum of $10,000 as endowment for a particular purpose". Merrill told

what the object was, but it has now gone from me. The sum named may not be correct, but it is a happy sum for the Garden to have and use. Carl Christensen, the farm man, was also at the dinner. He is a stocky Scandanavian with a pleasant countenance and a genuine agreeable manner.

— J. H. Miller, University of Georgia, Athens, is here working on some mycological matters. He has brought some sheets of Georgia Amelanchiers which not answering to any descriptions he wished me to look at. I did so. They are certainly different from any western-Pacific species, and apparently from any northeastern U. S. species. They seemed to have good characters and I told him

to name them. It is obvious that Small has not botanized this territory, the territory of his flora, except in a few spots, Florida mainly.

— Cont. from p. 58 — Mr. Cotton made some remarks about the new wing for the Herbarium. He said that Dr. Hill had decided that the new wing should be four stories instead of three as in the two previous wings and he thought that Dr. Hill intended to have some four or five small rooms where those of the staff (without rooms) who were carrying on research could work, for example Hutchinson needs to get on with his Flora of West Central Africa. Since Cotton is Keeper of the Herbarium, all this has a somewhat strange undertone in it.

– Dr. A.S. Hitchcock is here and came to have a word with me in the alcove where I am working. He has had two surgical operations and is to undergo another on his return to Washington which will be shortly. He inquired about my work, what I was doing, and seemed surprised that my research lay upon another part of the Flora of California. It interested me vastly that he thought I had given up that work.

– Dr. John Briquet has just come in from Geneva. As we looked about the herbarium he spoke of the crowding that was obvious. He said that at Geneva they were soon to add another wing, which wing would be stopped by the lake, then they would turn at right angles in the

future as required, and at right angles again making a quadrangle – but long after his time he said. They have at Kew between four and five million sheets. At Geneva about two and one-half million sheets. Dr. Briquet deprecated the English and American practice of glueing down the plant specimen to the herbarium sheet and gave some striking instances of cases where workers had been obliged to give up a particular piece or item or detail of research. (cf. p. 107).

Briquet said they at the herbarium were being squeezed between two powerful forces, the League of Nations (with plenty of money) on one hand, and the International Labor Office (also with plenty of money) on the

other. That these organizations needed and wished more space and would undoubtedly buy out the herbarium some time.

— Dr. G. Schellenberg, Gottingen, working on Ellipsantus, is here this morning. See p. 200.

— Mr. P. R. Wodehouse, a stout medium-height sandy big-featured young chap, of Younkers, N.Y. who is specializing on pollen-grains, is here today.

— "Smoking is absolutely prohibited" in the Kew Herbarium. I notice that those who must smoke, like W.K. Maxon, go out into the area by the side door, stand there and puff away.

"Here temperature adjustments become so deeply impressed in the protoplasm of a species that there results a more or less fixed habit as regards temperature. Low temperatures in winter become a necessary experience to the trees. Winter is not a recurrent catastrophe to vegetation but a stimulus to renewed growth" — Weaver & Cowles, Plant Ecology, p. 274. Is not this the inheritance of an acquired character?

International Botanical Congress

Aug. 16, 1930.

At the Imperial Institute we were received this evening by His Majesty's Government at a reception where the receiving party consisted of Dr. Addison, the Minister for Agriculture, and Mrs. Addison, Dr. Rendle of the British Museum, and others. Many of us, including myself, were gowned in academic costumes, the others in evening clothes. There was a considerable crush. The Americans were well represented.

— went from Kew to Kings Cross Sta., London, to take train to the International Botanical Congress. At Kings Cross I found a German waiting in that part of the station devoted to incoming trains. This man proved to be Professor Hugo Gluck, of Heidelberg, Chairman of one of the Section meetings of Morphology and anatomy. I got him into the right part of the station and ready to board the train when it developed he had no ticket. So back I took him to the booking office, got him in line at the right window. After which back we went to the train once more. Once in a compartment he proved a most interesting companion. He is a systematist, occupied chiefly with water plants. He says that Polygonum amphibium shows a difference betw. Europe and the U.S., but only a

slight difference, not sufficient for a species, but only as a variety (var. wrightii); that Polypodium vulgare in Europe and in California is nearly the same, the difference only being sufficient for a variety (var. californicum). Professor H.S. Fawcett of Riverside was in the compartment. He finds a blight on the shoots of Quercus wislizenii, both the tree form and the scrub form, which interests him because it seems the same as the blight on Citrus. Miss Anna Jenkins (DR) Jenkins, U.S.D.A. was in the compartment, also Miss Eileen Erlenson of Ann Arbor. At Cambridge we were taken at once to St. Johns College, three of us assigned there, and I looked curiously about my lodgings in the Third Court, on account of their quaintness, the Cam flowing beneath my bedroom windows. We had luncheon in the Great Hall and dinner in the Combination

Rooms, because of the Commons Room being occupied with the matter of refreshments for the guests at the evening reception. The reception was extremely crowded. One of the men I talked with was H. N. Ridley (Malay Peninsula man) who discoursed on the pink blotting paper so commonly used in Britain. It was formerly made from Madder rags, that is rags or cloth I take it dyed with Rubia tinctoria. Madder rags could not be used for white paper because in that early day they had no way of getting out the red. So these rags were used for blotting paper. Nowadays such a shift is not necessary, but as people like pink blotting paper, that color is still used. Paper is also made from rubber, he said, and is indist-

inguishable from ordinary writing paper except by "one who knows."

Went to the Botanic Garden this Sunday morning with W. R. Maxon. He discoursed specially on the ferns in the two fern houses. A fern that took my eye: Adiantum peruvianum with giant leaflets!

An extraordinary plant, taller than a man with gigantic roundish simple leaves was said to Gunnera

Before going to the garden J. H. Burkill took us on a tour around several of the colleges. He told us the story of the early professors of Botany, the elder Martyn, the younger Martyn (who held the living but did not even reside in Cambridge) and Sir J. E. Smith, founder of the Linnean Society, who seeing

Cambridge, England

the need of Botany, offered to come and teach it. His offer was rejected because of his being a non-conformist, but finally that was arranged and he came to Cambridge. However the doors which should have been open were locked against him! So it was that other arrangements were made, resulting in the beginnings of the present arrangement. Burkill told of Chas. C. Babington: that he lectured to students on Botany, a considerable number. The first lecture was on leaves, the second on leaves, the third on leaves, the fourth on leaves — well the students decreased each day — the fifth lecture there were no students — and so the course ended. It seems that Elodea canadensis appeared as a result of casual introduction

in the midlands from America. Some of it was sent to Babington who grew it in his garden and finally tried it in the Cam River. Here it flourished astonishingly and choked up the river, causing the undergraduate rowing crews much annoyance. It was their idea that Babington did this because he disliked rowing and wanted to hinder it! So they called the weed Babingtonia pestifer!

Burkill was a student of Caius College. The founder Keyes, built 3 gates, a low gate, the Gate of Humility, where the student enters; he then is fitted to pass through the Gate of Virtue; and finally when ready for his degree he goes out of his college by the Gate of Honor to receive his degree at the Senate House.

Cambridge, England, Aug. 16

— On Saturday evening, the evening of our arrival there was a general meeting [in the great Science Hall] of the Congress, Professor A. C. Seward of Cambridge presiding as President. After certain introductory remarks the Vice-Chancellor of the University entered in state, as we all rose, entered in robes, preceded by two robed Fellows carrying silver Maces, followed by one Fellow with a silver mace. Then followed an address of welcome in Latin. After which the Vice-Chancellor departed as he had come, and the meeting resumed its business. After the meeting there was a grand reception in academic and evening dress given by the President and Fellows of St. Johns College which was an extremely crowded affair, though as we overflowed into the green court, that was roomy and pleasant.

This morning I went first to the meeting of Sect. E., Phytogeography and Ecology, where a lively symposium occurred on the nature of the phytomer: Dr. Agnes Arber, very interesting; Priestley, Leeds, very clear and convincing; J. H. ↑ K. Downie, good but difficult to follow because his English in public delivery is rather poor; W. H. Lang, Manchester, who talked on the paleo evidence. Lang said a great deal in a qualified tone or contrary way so that his statements would not be too broad. At this he is expert. I was interested in this phrases: a distant illustration, or distant analogy of so and so; so and so shown to be highly interesting but not yet well enough known to be received for consideration in such a theory; when we know

it- from top to bottom; I am quite friendly to the theory and ready to accept it- when it can be!

At the Taxonomy meeting Diels of Berlin presided. My arrival was late since I left the Morphology section to get there. The discussion papers related to the Chinese flora.

- Eileen (Whitehead) Erlanson, in her papers on Roses, stated definitely that species in the genus Rosa cannot be determined by chromosome number. (But Miss Crum says that in print she says the opposite. I may have misunderstood.).

- Professor John Briquet of Geneva tells me that the original Mocino-Sesse drawings were lost and that nothing is now known of them. Deleaudolle's new genera and species therefore rest on the colored copies of Mexico preserved at Geneva.

- This evening I walked in the meadow field of St. Johns College by the river Cam with Dr. R. E. Woodson. After a bit we were joined by Dr. Anderson, also of St. Louis, who asked me a very difficult question: Is there any difference in character between the families of Liliflorae, and the families say of Labiatae and Compositae? He meant as to kind and character and degree of variation and quality of relationships in each group, though he did not state the thought he had in mind very well. After a moments' reflection I said: No, I do not believe that there is any difference. I find much the same kind of complexities in Liliaceae or Juncaceae that I find in Dicot families, that is parrallel variations, continuous variation or an inter-complex

of variations, or a complicated cross-webbing. It is my experience that in each family I find a different phase or kind of variation, mostly too subtle to express in any formal terms. Then I spoke of my intensive work on Ribes in California, familiarizing myself with all the subtle phases of variation; that in the case of the species Ribes Menziesii I had discovered that along the Californian coast each climatic and topographic area has its own form, chiefly marked by peculiarities of the glands; that Douglas' specimens from California carried no locality labels but that I had able to place them all geographically and some of them with great accuracy, that his specimen of the form we now call Ribes hystrix must have been obtained at Point

Lobos at the Carmel River which locality he could scarcely have missed when at Monterey, that his specimen of what we now call Ribes hesperium McCl.* is the particular form of that species which occurs at Santa Barbara but which does not occur easterly in the Santa Monicas or San Gabriels where "hesperium" is perhaps mainly found. Douglas, we know, was at Santa Barbara. This matter interested Dr. Anderson very much; he said that Ribes has uniformly 12 chromosomes and that in hybridizing it segregates out into just such forms as I had described as geographical.

— J. H. Priestley, Prof. Botany, Univ. of Leeds, meets me and recalls his visit to California. He is most pleasant. Cont. p. 195.

* or variety of Menziesii

— At the Taxonomy section this morning A. J. Willmot gave a paper on precision in the use of terms and illustrated the diversity of use by showing lantern slides showing the ideas of various botanists as to what is meant by lanceolate, showing figures from various texts, showing lance-head (hastae) figures drawn from the collection of ancient arms in the Tower of London. It was very amusing — the unlike outlines called lanceolate. Hall's paper on an International Taxonomic Bureau was read by E. D. Merril, commented upon by Rendle, British Museum, as Utopian. A. S. Hitchcock thought there was little call for photos of grass types. Cotton, Kew, in presenting the case, admitted he had found

no botanist in America or Europe in its favor and conceded that too much reliance might be placed on photos of types, resulting in slip-shod work, a remark which evoked spontaneous applause. It was generally agreed that a finding list of collectors specimens, by herbaria, would be useful if made. No one present, doubtless, suspected the real underlying, or least first motive of Hall, which Hall fully accomplished, to get his name before the Congress.

Sprague remarked that we lacked, in English at least, treatises on the philosophy of botany, referring however to Diels' paper on the subject.

It seems that Francis McBride has been spending a year in Berlin photographing types for the Field Museum under a grant (from the Carnegie Institution I think). Also, said Cotton,

a large number of the photographs have been made in Brazil.

A.S. Hitchcock said that the grass types in the Grass Herbarium* are segregated and kept in a separate case.

The listening carefully to indistinct speakers is very tiring. L.H. Kinsche thinks that those foreigners who speak in English are hardest, most exhausting, on the nervous system; but I myself find it very difficult to follow the English, usually, without being very attentive. In fact any one who does not think of clear delivery requires effort for the listener. Hitchcock is one of the best speakers we have from the U.S. in taxonomy, though Fernald ex- ↑M.L. cels even him.

* U.S. National Herbarium.

The nomenclature session this afternoon was warmly contested all along the line. The main contention centered on the conservation of specific names, nomina specifica conservanda. The americans rather generally, the South africans and Australians were for it. The germans and swiss and French were against it. The British Committee were originally for it, but abandoned the plan as impracticable. The strongest arguments for it related to long-continued usage, nomina familiara, and to usage in horticulture, agriculture, forestry, medicine. The argument against it was that there would be no end to the proposing of species for the conservanda specifica list and would eventually lessen the weight and authority of the rules. Voting was by ballot. Dr. Hill wrote on the blackboard:

Ballot no. 1.

Art. 20.

Oui	Non
Yes	No
Yah	Nein

When a number of persons in the

crowded room laughed at the Yah, he erased the "h" leaving it Ya. Those who had not seen the Yah were told "Y-a-h"! Hearing this he mistook it for an order to restore the "h" and he again wrote it "Yah"!!! The roar of laughter from the whole room caused those near him to help him out and he erased the "h" once more. He did not know how to spell the German word "Ja"! (See p. 99 seq.)

Another amazing thing occurred this morning. In discussing the needs of systematic botany this morning (cf. p. 76-77 ante) M-L. Fernald got up and told in detail of his domestic troubles in Harvard University in getting a course in systematic botany started. It was amazing that he should tell an International

Congress of his personal troubles.

— T. A. Sprague, Kew, has been sitting as Secretary-Interpreter of the view points of the group of British botanists. He is quite nervous and excitable and does not state things very calmly or clearly always. Once he had to reverse a decision on the spot, thus raising a laugh from the session. It appears that Willmot (British Museum) and Sprague (Kew) have not gotten along well together on this nomenclatorial expression of the British botanists. It would appear to be largely personal. At any rate Willmot has talked to me twice about it at length and as if I were an old confidential friend. He says that he invented the phrase "Nomina generica conservata" to take the place of the

Phrase "Nomina generica emerwards" and that Sprague takes the credit for it as well as for other things which he (Willmot) has proposed. He says further that he does not mind Sprague getting the credit, so long as the thing goes through. But of course he does mind, for otherwise he would not speak of it; and he says besides Sprague is giving away the British contentions to Brignet whom he describes as a man absolutely fixed, who cannot be changed in his nomenclature views by the most evident proof. The divergence between Sprague and Willmot received an amusing illustration yesterday afternoon. Ambiguities had clouded the proceedings until there was a distinct halt. In such cases, the presiding officer,

in cases of doubt would turn for explanation of a matter to Brignet on the one hand, or more frequently to Sprague, who would rise from where he was sitting and come to the presiding officer and converse quietly with him. Sprague practiced a good deal of this "buttonholing" with Merrill. On the occasion in question he did so, and Willmot rose too and approaching Merrill seized the lapel of his coat to draw him (Merrill) to him, this being done across the front of side of Sprague. He was so anxious to anticipate Sprague by presenting his own point of view - that he was for the moment unconscious of the assemblage. The assemblage was quite conscious of the little play and broke into a great roar of laughter and derisive comment,

so that Willmot retreated to his seat in some confusion; Sprague retreated, too, but seemed as usual more absorbed by the perplexities ever in his mind. Merrill turned back to his station as presiding officer with a distinctly sheepish grin like a small boy caught mauraues in the jam jar.

— This morning I went to hear A.J. Eames, Cornell, on the anatomy of the gynoecium. Sepal traces are like leaves. Petals, the traces mostly like those of stamens, and so in many cases the petals may represent sterile stamens. In Magnoliaceae and some other families the stamen traces are 3. Probably this is the primitive number. In most families the stamen traces are 1. In carpels the traces are 1, 3, 5, 7; three being the primitive number. Tetracentra = the most primitive Angiosperm. He was about to talk on cohesion in Labiatae when he was stopped by time. Dr. Agnes Arber presided.

Today the nomenclature session resumed. I myself was a bit late, since my paper on Chaparral and the role of fire had to be presented to the Plant Geography and Taxonomy section. I did not pick up the thread very readily when I came in. They were evidently voting by voice in the non-controversial articles and passing those which would require debate. But the article on Latin diagnoses precipitated a lot of debate. There was some strong expressions in favor of doing away with Latin, especially by Barnhart, J.H., of the New York Botanical Garden. Dr. Briquet's reply was that if the Congress did not stick to Latin that it would necessarily lead to diagnoses in any language, — such as Russian, Chinese, Japanese. It seemed that at the Vienna Congress the Russian deleg-

ates were instructed by their government to withdraw from the Congress and return home if the Russian language were not recognized equally with French, German and English, — this in case Latin were not made the sole, compulsory language for diagnoses.

Naturally the Congress stuck to Latin. All the Continental botanists, nearly, were for Latin, almost solidly. Hitchcock spoke for Latin, though [A. S.] hitherto following the American code which does not require Latin. E. D. Merrill spoke, prefatorily, when the subject was introduced, in a remarkably frank manner, as he has a habit of doing occasionally, or even rather frequently. I am referring now to a peculiar kind of frankness, as this, he said: In college

I had no Latin. For the last fifteen years I have been writing Latin diagnoses. Doubtless, he said, his Latin was very poor but it passed. Latin was finally voted with Jan. 1932, as the date from which we start. The majority was heavy.

Bacteriology caused debate. A representative of the Worlds Micro-biology Congress stated that the Congress were against Latin for bacteria.

Rambottom, who says facetious things, intimated that systematic botany did not need to take care of such morphologically poor organisms as bacteria! The bacteria representative struck back and said that if Botany would not make some concession to Bacteriology, Bacteriology was quite prepared to go its own way. But the Congress was placating and voted to reserve this matter until 1935.

After the session I went to the huge garden party in the grounds of Downing College, given by the Master of Downing and his wife, Professor and Mrs. A.C. Seward. Here I met Miss G. Lister, F.R.S. specially introduced to me by Dr. J.B. Davy. Miss Lister has been using my Manual. I also met Dr. Agnes Arber, the botanist, and Dr. R.R. Gates. Also Dr. Margaret Ferguson of Wellesley College, Dr. Ottley of Wellesley, and Dr. and Mrs. A.J. Eames of Cornell, Mrs. Eames a very pretty woman indeed.

On the way to the Garden party I fell in with Richard St. Barbe Baker, author of the book, "The Brotherhood of the Trees", a book to stimulate individual tree planting. He is a forester and is going next year to New Zealand or

Australia via California in order to see the Redwoods. He seemed to me a fine chap, a graduate of Cambridge, a student of Seward to whom he presented me. T.A.C. (cont. p. 141).

This morning I went to the plant geography session and heard Dr. H.H. Allan, New Zealand, on Jordanons. He referred to lumping and splitting though not quite sure what we are lumping or splitting. He quoted Lotsy as saying that intelligible variability does not exist. He quoted Hooker's essay and Hooker's remark that he could not examine within his time limits all the New Zealand plants wherever they occurred in the world; that he must leave to those who came after him. Allan considered carefully the introduced plants in New Zealand, comparing them with their parents in

their native country. This was interesting. He said that hopeful results would probably be most fruitfully attained from a development of an alert curiosity regarding the common and obvious.

— Dr. Dow V. Baxter, Michigan, invites me to stop off at Ann Arbor on my way home to California. His invitation is extremely cordial. Since the University has already opened I cannot do so.

— R. Lloyd Praeger, director of the Botanic Garden, Dublin, has published on Sedum. (Jour. Roy. Hort. Soc. in 1921). He has the attitude of a cultivator in the matter of species. I met him at the garden party at Downing College and tried to draw him out on the matter of the generic limits of Cotyledon did not discover much. He has not yet worked aught save Sedum. He thinks that sinus characters are very much lacking in the family that one must recognize genera on the basis of habit, etc. He agreed that Dudleya must be put with Echeveria and favored separating the eastern and western hemispheres. I was introduced by T. H. Knoche who has been in Ireland and says (Cont. p. 106),

— The genetics — taxonomic common meeting was presided over by Sir Daniel Hill who said species are a creation of the mind. And yet he went on to use the term "good species" presently. Also he spoke of a species which from another species "seems to have arisen". He concluded: "Species exist only in our mind and not as absolute entities but as a convenience". In other words the geneticists expect species to be as much fixities as did the older systematists, or failing definiteness and fixity then they are fictitious.

T. P. Lotsy's paper was interesting. It was read (he not being present) by a man who spoke only half-well, and mumbled the last two or four words of each sentence, trailed or skipped over them as if of no

account, but that the first part of the next sentence must be gotten to. One of his statements gives a key to a good deal of his discussion: "There is no evidence that any present day species has arisen from any other." Several of the papers dealt in detail with genetical work. I have often wondered how a geneticist knows what he is working with? Is he sure of the specific identity of his material. Certainly systematic botanists often are not, and they often differ about a species. Those of us who do our taxonomic work on the herbarium on the basis of work done in the field and in the garden are certainly on the safest ground. Does the geneticist preserve specimens to validate his work — especially herbarium specimens

filed in permanent herbaria?
I cannot well remember the points of this geneticist. They were technical and mostly their spoken enunciation was impossible to follow. Professor M. L. Fernald towards the end of the session commented upon the use of leaf characters — as exploited by geneticists this morning — and said botanists regarded leaves as unsyc. trustworthy, as unreliable, as fickle and disregarded them in scientific work. In the chase for real characters reliance was placed on the carpel, fruit, seed. If there failed the chase was given up. He ended triumphantly: "By their fruits ye shall know them", which was greeted with lively applause. I myself was much astonished. In entire families there is no fruit differentiation or very little, as in Polemoni-

acear, and yet we must recognize more than one species, not to say more than one genus because differentiation of corolla is very pronounced, as of stamens, calyx, habit and so on. It seemed to me very unscientific. It is a very old dictum: The species makes the character; not the character the species. In other words you cannot define your characters in advance. Fernald qualified his statement by saying broad-leaved plants, but uniformity of fruit is often very great in broad-leaved genera.

– We, Mr. Maxon and I, went one day to the Lindley Herbarium in the Botany School. Mimulus brevipes, a spec. by W. Lobb 400, is marked "Mts. of San Gabriel"; "annual 2-4 ft. h."; so Lobb did occasionally give a station for a collection.

– At the Nomenclature session this afternoon the very important legislation on Homonyms was taken up – the once a synonym always a synonym matter of the American Code people. The Germans, Austrians, French, Scandanavians were all against the legislation in favor of killing all homonyms. The British, Australians, South Africans, New Zealanders were all in favor of it, as also most of the Americans. Some Americans were opposed: Fernald, myself. The vote, 241 to 111, was very heavily in favor of adopting this new rule. It is the most revolutionary change by far that the Congress has undertaken through the section Taxonomy. What will the Germans do about it? It would seem they must accept so decisive a vote.

– We began the nomenclature sessions this morning at 9:30 We first voted that the original spelling of a generic name must be kept unless an obvious printers error or clerical slip. Casaini meant to write Aplospappus said Fernald and not Halplopappus though the latter is classically more correct. Robert Brown meant to write Elevcharis, not Helevcharis, although again the purists are in favor of the latter. Some has said that Brown deliberately wrote it Elevcharis for the reason that he knew the cockney would pronounce it so even if he spelled it Helevcharis, said Fernald! Similarly Cypripedium is to be accepted and not Cypripedilum, Cypridopedium, or Cypridopedilum.

The termination -osme in some combination is made feminine by some authors, in other combination it is made masculine. The rule is to follow the usage of the author of the genus.

The nomina conservanda lists were all referred to the Sub-Committee.

H. N. Dixon, the Moss man, kept bobbing up to delay proceedings. Properly he always had a right to be heard but the section became impatient with his interlopations. It seems that he is not so very well (hygieincially) and has a sick wife; but he showed nothing of this, was cast-iron in his feelings (that is not at all sensitive). In his eagerness to exploit a particular point he was quite unconscious of himself

and stepped out, a girded knight, irrepressible, to battle for his point. He wanted to explain in great detail even when the entire section was all in favor of his contention. He was our enfant terrible. In American slang he was, as Maxson said, plumb ubiquitous!

The outstanding feature of the sessions was the urbanity of Harms and Briquet. They never showed any disturbance of feeling; were never upset; always calm and even. These two translated every motion into German and French from English; and Briquet in particular translated the gist of various speeches. The section gave them a rousing ovation at the end.

?? Incident of Rübrodsaat that Brazil nuts.

— Apropos of the British, Maxon remarked that they are not as sensitive as the Americans. Dixon (H.N.) is extremely obstinate, unconsciously so, undoubtedly. I remarked to Maxson that Hill was not flustered when he showed that he did not know how to spell "Ja"! Replied Maxson: "Just so. I would have wished to sink through the floor!" So should I! (Cf. p. 80 ante.)

The section stood solidly against "classical purity" in old generic names, correcting for sure that there would be no end to it, that is it would hinder stability.

— The Maximovs of Leningrad and other Russian botanists are not here. A rumor runs that the Reich Soviet dictatorship would not let the botanists come! — i.e., would not let them out of Russia!!

— Professor Hugo Glück (cf. p. 64 ante), whom I rescued at Kings Cross Sta., was met at Cambridge by Gilbert Carter, Director of the Cambridge Botanic Garden, who took Glück to this house. Dr. Glück was so appreciative of my aid that he spoke of it to Director and Mrs. Carter, who told him to ask me to come to tea. I did. Found only Mrs. Carter, who was extremely pleasant and served tea, but Gilbert Carter soon came in. We walked out into the Garden, and he accompanied me outside the Garden to the main avenue, and cordially asked me to come again. (= Gilbert Barter).

—

English	American
Lift.	Elevator
Braces	Suspenders
Oddments.	Remnants.
Roadups.	Road closed.
Footway	Sidewalk
upset price	
Snacks	

— W.R. Maxson was seriously and terribly disturbed by the fact that the Congress allowed a tranonym to be transferred to another genus and validated. The fictitious case cited by Hitchcock was Poa alba Smith 1820, not a good species. Poa alba Jones 1840, another and good species. Eragrostis alba Brown (1860), a transfer, is validated. Maxson contended that Poa alba Jones had no standing. It was dead! And nothing dead could be used or transferred. He went at once to several persons about it; as the session closed; finally he spoke to Sprague. Sprague agreed with him that the action was illogical but the fiction that Brown created a new name under Eragrostis was adopted. Continued Sprague: "I could not get the Congress to adopt all my proposals." — !! It is this attitude on Sprague which does

not in the least bother me, that is to galloping to the British Museum people as I can see (cf. p. 81 ante).

– This evening at dinner we were invited by the Master of St. Johns College, Professor Scott, to take wine and fruit in the Commons Room. We went up and seated ourselves at a long table beautifully lighted with candles.

Weevers of Holland made a little speech for the Botany guests, expressing our great pleasure at being so hospitably entertained. The Master replied in a most pleasant and agreeable manner*, with the feeling and diction of a scholar. Port wine, Hamburg grapes, salted almonds and cakes were served.

* He referred to the dictum of Socrates: "Plants can teach me nothing," but added that we of this later, botanist or classicist, have a common ground of interest in gardens.

– The Survey Gazetteer of the British Isles. J.G. Bartholomew. not dated. C. 1901. I give some examples of his form of citation of places:

– Longhanavally, vil., co. Westmeath, 2 m. N. of Castletown sta.
– Kitt's green, hamlet, Herts, 4 miles SE. of Hemel Hempstead.
– Knapp Hill, ham., Hants, 3¾ m. NNE. of Romsey.
– Knightley, hamlet, in co. and 6½ m. SW. of Stafford.
– Knightswick, par., vil. and sta., G.W.R., on River Teme, in co. and 8½ W. of Worcester; 857 ac., pop. 168.
– Knockagalicky, mountain, near Bolus Head, SW. co. Kerry; alt., 1351 ft.
– Helford. – river, S. Cornwall; rises 4 miles W. of Penryn; flows S. then E. to English Channel, and is 10 miles long.
– Helensburg, quoad sacra par., coast town, etc. in Dumbartonshire, on the N. shore of the Firth of Clyde and at the entrance to the Gare Loch, opposite Greenock (distant 4 miles), 8 miles NW. of Dumbarton, 23¾ NW. of Glasgow, and 71 miles W. of Edinburgh by rail; pop. 8554.

There is much history, trade statistics, pop. data and so on given in connection with large towns or historical places. Even tiny hamlets may have a mention of a celebrated man's name as his birth places. As note above, abbreviation is not consistent. 16 points are used, but I rarely see more than [compass] the eight used by myself. See my note on this subject, vol. 50, p. 193, Field Book.

Sometimes a favorite name is given for a place: Mayo, "plain of Yews". "Near" is often used to indicate position without reference to mileage.

At the meeting of the Taxonomy section this morning a General Commission on Nomenclature was nominated and voted from each country. The representatives voted from the United States are: J. H. Barnhart, W. R. Maxson, M. L. Fernald, E. D. Merrill, W. L. Jepson. Practically every country on earth was named for representation. When the Chairman asked if there were any more, Prof. Fernald rose and said: "For the celestial regions I nominate Linné; for the infernal regions Rafinesque." Fernald can be very witty and this humorous sally brought forth much laughter.

After the Taxonomy meeting we soon joined the final plenary session where Professor A. C.

Seward presided and put the motions from the various sections. F. A. Sprague had the satisfaction of addressing the great gathering in explanation of the important points changed by the Taxonomy section in the matter of the nomenclatural rules.

The session was a sort of love feast, in addition, in which all sorts and kinds of compliments and expressions of gratitude were voted for hospitality shown, the services of the officers and so on.

The Congress will reconvene in Holland in 1935.

— At table at St. Johns College I became acquainted with a dark man by my side. He might have come from anywhere. He proved to be Mohammed Abdullah Zaghloul,

Cambridge, England, Aug. 23, 1930

who knew well my friends in Cairo. — Went one day to Ely Cathedral. In some respects I was more deeply impressed than by any other cathedral I have seen in England. It stands on a slight rise in the country, with few about it, "The Isle of Ely". That such a wonderful structure could be put up in that age by a comparatively small farming community is wonderful. Many members of the Congress came to visit Ely. There I met David M. Mottier of Indiana University, and many others.

J. P. Van Eseltine, also, as I remember.

— Cont. from p. 90. — that the collection of Sedums in the Botanic Garden is very remarkable, very fine.

Kew, Aug. 24, 1930.

[Cont from p. 61.] However, if specimens are not glued down and are used a great deal, they tend to go pieces. Once in a while, the gluing down is calamitous. For example says Sprague, he and Riley worked up the species of Lopezia (Mexican). The delicate glands of the flower were spoiled by gluing and they had to abandon any attempt to do the work as planned.

— In Frankenia, Fl. Australiensis, Bentham has put seven species into one, we find, says T. A. Sprague. They form a difficult group; and while the placentation and position of the ovules is very different in the species, after all Bentham could not stop to work out, to dissect every detail. The Flora Australiensis would never have been finished if he had. It

is not fair to judge a man by looking out his faults. The fair way is this: Could you have done as well as he did starting where he started and with the same facilities or lacks that he had. Any man can leap further by jumping from another man's shoulders, adds Sprague, as he and I talk today at tea. It seems to me, too, that a man should be judged by his really constructive results and not by what he failed to do.

— Today, Aug. 25, I met Mr. H.N. Ridley in the Botanic Garden and he invited me to luncheon at his house. He lives in Cumberland Road very near E.G. Baker. In his dining room I was struck by the old portraits on the wall. I merely glanced at them but

he noticed it and at once said they were family portraits, adding that he could not get the originals and had secured copies. Though he did not say so, it was surely to be inferred that he belongs to the Penn family. Amongst the lot was a well-known engraving of William Penn negotiating with the Indians in Pennsylvania.

Ridley knew Geo. Bentham personally. Bentham was, he said, a very serious person, seldom smiled or laughed — having a sombre personality, quite in contrast to Sir Jos. Hooker who was lively and genial.

— In flower the Onotheras (species) look more alike, that is living, than when dried, I suppose. It usually happens that when one has fresh flowers that the species of a genus look different, to be sure, but show a general resemblance generically

– Dr. Carl Epling (who is here) thinks Lepechinia should include Sphacele, that there is no substantial or trustworthy differences between them. He brings up the case of Lepechinia hastata found only on one of the Hawaiian Islands and towards the tip of Lower California, and queries early introduction by man – Jesuit missionaries – but this theory I regard as strained. At least in the Hawaiian Islands this species has all the characters of a native plant in its distribution. Its occurrence in Lower California as to habitat and local range was not described by Brandegee, who reported it.

Epling says the work of Briquet in Engler & Prantl's Die Naturlichen Pflanzenfamilien

is not trustworthy. He instances the case of Lepechinia put into a different generic group from Sphacele; of Cuminia put near Mentha on account of its habit, while in reality its fleshy "seeds" (nutlets) place it far elsewhere. Briquet did not know it had fleshy nutlets or if he did, failed to mention them. Epling says barely 20 o/o of Briquet's species are good, that he based species sometimes (S. Am.) on exceedingly small scraps, in one case on a sterile scrap, calling it Sphacele sp., when it does not belong to that genus.

– The beginnings of California phaenogamic botany are mostly rather clear. This is because collections did not begin until a rather recent date and in consequence, the descriptions are fairly

clear. The first at all considerable California paper is to be found in Hooker & Arnott's Botany of the Beechey's Voyage which is subsequent to 1830.

– Mr. J. Clemens and his wife, Mrs. M. S. Clemens, are here at the Kew Herbarium. They have traveled widely in the far East. Mrs. Clemens has botanized in Borneo, the Philippines and in California. Mr. Clemens is an Army chaplain. It was while stationed at Monterey, says Mr. Clemens, that Mrs. Clemens first began the study of botany by aid of Jepson's Flora. The two of them worked after hours this afternoon, at the Herbarium, and I was deputed by Mr. Cotton to let them out.

– This morning early I went to the Canadian Pacific Railway office in Charing Cross and made my arrangements to go by the special train to Southampton to sail on the Montclare Sept. 5 for Montreal, thence to Berkeley. After, I went to Foyles in Charing Cross Road, bought some botany books, and then went east to see Dr. Johnson's house in Gough Square. As I drew near the neighborhood I found it full of printing shops, paper shops, Eyre Spottiswood & Co., and then I saw Goldsmith's Lane. Next I entered the house, and first took some definitions from a fine folio copy of the Dictionary.

Patron: one who countenances, supports and protects. Commonly a wretch who supports with insolence and is paid with flattery.

Network. Any thing reticulated or decussated, at equal distances, with interstices between the intersections.

Lexicographer: A writer of dictionaries; a harmless drudge, that busies himself in tracing the original, and detailing the signification of words.

Excise. A hateful tax levied

upon commodities, and adjudged not by the common judges of property, but wretches hired by those to whom excise is paid.

Oats. A grain, which in England is generally given to horses, but in Scotland supports the people.

Pension. An allowance made to any one without an equivalent. In England it is generally understood to mean pay given to a state hireling for treason to his country.

The house is a four-story brick building bearing the old window-shutters, the bolts and great chain on the door, the old panneling of Johnson's day. The walls are hung with portraits: many of Johnson, Mrs. Thrall, Garrick; Sir Joshua Reynolds,

Edmund Burke, James Boswell, Lord Chesterfield. There is one large engraving which is exceedingly interesting: it depicts the anteroom of Lord Chesterfield's palace with the poor persons of inferior degree waiting with the hope to be ushered into the presence of the noble lord. At the street door is the noble lord's flunkey; just entering, and casting a look of curiosity and disdain at the seated Johnson is a young woman of fashion, with a liveried black boy attending her, her waiting woman behind her, a licentious gallant of the town by her side. These three are going at once to the presence chamber of Lord Chesterfield.

– Morton, C. V. – W. R. Maxon talks about him. cf. Jepson Private Journal 4:145.

Entering the herbarium building by the front door, one finds in the hall or entry-way the walls hung with portraits of Aug. P. de Candolle, Robert Brown, Alexander von Humboldt, Alphonse de Candolle, C. B. Clarke

There is a broad landing at the first turn of the stairs. A large glass show-case stands here containing mementos of the Hookers, an autograph letter of Linnaeus, photo of tree trunk in British Cent. Africa with a Livingstone record carved in it?

On the wall is a large oil portrait of George Bentham.

The reception room at the right of the entrance way is hung with portraits of the past directors of Kew, Sir William Hooker, Sir Joseph Hooker, W. T. Thiselton-Dyer (characterized as of the "non possumus" order by J. A. Sprague), Sir David Prain, and Keepers of the Herbarium, Daniel Oliver, J. G. Baker, W. B. Hemsley, Otto Stapf. There is also a portrait of Wm. Aiton (author of Index Kewensis) and his wife.

Another of

— M. L. Fernald is provoked by the fact that one member of the New England Botanical Club has been identifying species wrongly by Britton's Illustrated Flora, merely because in the Flora all species are illustrated, and the man found it easier to use the illustrations and skip the descriptions. Even worse here at Kew, the assistants to my astonishment identify specimens wholly by comparing herbarium sheets and not using descriptions or dissections! They often get into the wrong genus or even wrong family!

Kew Herbarium, England.

– Dr. A.W. Hill has just come around to my alcove in the Herbarium telling of a Californian from Eureka or near there who has been to see him, bringing a photograph of a Redwood (Sequoia sempervirens) labeled as 2000 years old and straddling another Redwood labeled as 2500 years old. This man, perhaps this name is Collingwood,* but Dr. Hill did not remember exactly, wished this photograph to be published in the Kew Bulletin; but Hill feels, properly, that the figures are too uncertain, too indefinite.

– Cont. from p. 52. one of the younger assistants complained to Spragg about the abuse of the specimens.

* G. E. Collingwood, says Dr. Hill later. London address: 11 Copthall avenue, E. C. 2.

– Just introduced to me N. S. Pillans of the Bolus Herbarium, South Africa. We talked a bit about "veld burning" and about "light burning", the former as practiced in South Africa, the latter as propogandized in California. See p. 197.

– Dr. A.L. Grant went down to Bournemouth to see Dr. J.M. Greenman who is ill there. He had several operations in St. Louis, and then decided to come to the International Botanical Congress. When he reached England he had to go into hospital for another operation. Dr. Grant reported that he was recovering rapidly from the last operation and was walking a bit. Because of the fact this his appendix burst and that the first operation was not prompt, he ought by all the rules to be dead!

It is evident that he has great resilience. He gave Dr. Grant instructions re. the taking over of his work at the Missouri Botanical Garden. He has borrowed Senecio material from "everywhere", from Berlin, from Washington, from me, and probably many other places. He has had most of it as long as he has had mine - naturally twelve years. He has the complete set from Pomona College which distresses Munz very much. Of course Freeman P. A. thinks that in a short time he is going to finish up his Monograph of Senecio, but probably he never will. He is a most refined courteous gentleman with a gentle exterior - so that when he referred to the Senecio loans, he told

Mrs. Grant that the material was to stop where it is now stored, referring to the particular cases. He said that letters might be received regarding these loans but to pay no attention to them. That is a hard-boiled attitude difficult for me to associate with him, but I know by experience over twelve years that his policy is just that.

- Dr. A. L. Grant says Dr. L. R. Abrams is a Jew, at least part Jew; that he is very "close"; that Mrs. Roxanna Ferris (see p. 122) wanted a copy of his "Distribution of Southern California Trees and Shrubs" but her only way to get it, though his chief assistant, was to buy it! I had noticed that he gave me very little in the way of his publications but my mind had not dwelt on it or remarked it especially. (Cont. p. 197).

- A. S. Hitchcock thought I had given up further publication of the Flora of California, on account of getting out the Manual. It is clear that [Cont. p. 134]

– The labels of David Douglas are on plain paper lightly ruled in pale blue ink. He underscores the specific name of the binomial, and where it is his own new species he writes after the binomial D.D. He may give a single station where the plant was collected, or he may indicate two stations where he has observed it or collected it. The labels have (usually) two slits, showing that they were attached to the specimen in the field.

– The Hookers, father and son, saved everything! letters, bills, calling cards, newspaper clippings, fugitive pamphlets. The result for me is highly interesting, so much do I find of "curiosae Californiance".

– Mrs. Roxanna Ferris. Cont. from p. 121. She is his own special assistant.

– Cont. from p. 117. – It is obvious that Fernald is in many places rather unpopular. Dr. A.S. Grant does not like him at all. Doubtless he does not like her. Two such natures would not hit it off. She says he mistreats and neglects the women from Radcliffe College, considers them no good as to botany. He does not have to teach them, but Harvard professors are paid extra for teaching Radcliff classes, and Fernald needs the money. Therefore, triumphantly exclaims Dr. Grant, he is not playing the game! The feeling against Fernald cropped out on the part (cf. R.B. 50:143). of the younger element in a compartment of a railway car on the way home from Cambridge. Dr. Rob. Woodson made some depreciating remarks, as did others, Miss Allan summarizing by saying that any one so imperfect physically as Fernald would show a "complex". I think, perhaps,

she did not say "imperfect," but "abbreviated". Fernald is a rather fine specimen of a man, good head, excellent shoulders, strong arms. He is sticky but his legs are so short, and his body is rather short, so that he seems dwarfish in a way — and yet he is, in my opinion, an excellent physical type save for appearances, that is on conventional standards. I admire Fernald's botanical output and while at the Gray Herbarium in 1896 his lack of stature I failed to notice. I knew Fernald at the Gray Herbarium thirty-four years ago. He was of course a man full grown then. But I have no remembrance of his small stature. A tall well-built man like myself is not conscious of short stature in other persons. Dr. Grant also says that Fernald speaks

disparagingly or insultingly of Dr. Robinson behind his back. He did not to me, however, and I take it as a compliment to myself that Fernald and others do not tell me such things (Cf. F.B. 50:151).

— Those of us working in the Herbarium on Sunday (Aug. 31) were invited by Mr. W. Dallimore to tea at 4:30, Hanover House, Kew Green, which is next the Herbarium. Ushered into the garden I found Mr. and Mrs. Dallimore, their daughter, Mrs. Dallimore's mother, Dr. Domin of Prague, Dr. Gluck of Heidelberg, Dr. Rietz of Upsala.

— I am constantly amazed that the men at Kew, on the staff, have no private places to work. Also I find F.B. Rendle at the Natural History Museum working "in the open" where everyone passes.

New England, Aug. 31, 1930.

126 A number of us were invited to the Directors house for after-dinner coffee at 8:30 this Sunday evening, Dr. Gleason of the New York Botanical Garden, Dr. and Mrs. Domin of Prague, Dr. Riehj of Upsala, Miss Hill's cousin from Bath, and a few others. Miss Hill was, as usual hostess for her brother, Dr. Hill.

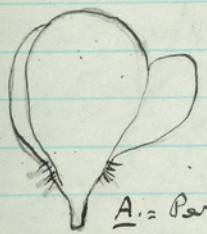
– Rights of way for foot passengers are very important in England and are preserved religiously. Walking is a recreation. I see near Graveye Manor, a bench by the wayside with the inscription:

"In memory of one who often walked this way and now lies yonder". (cf. p. 16).

British Natural History Museum. 127

Sept. 3, 1930.

Eriogonum fasciculatum Benth. type!



A. = Perianth

The perianth is quite glabrous outside. At first it did not look so, but close examination with a lens shows no hairs except a short small fringe protruding between the perianth-segments.

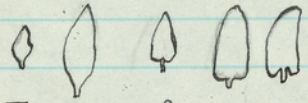
B. Single perianth-segment as seen from the inside.

The segment is glabrous save for a band from below apex extending down ↑central to the base of the segment.

The type specimen, Menzies, is marked San Diego on the back of the sheet! The leaves are not as narrow as in Abrams 3519 (Tia Juana) nor as broad as in Palmer 349, 350 (San Diego Co. (The Palmer spms have rather narrow leaves, Abrams 3519 decidedly narrow!

[Cont. p. 129]

– Eriogonum parvifolium Sm. This rests on a Menzies plant from Calif.



Types of leaves: natural size.

Perianth glabrous; segments obovate, not broad. I turn over the Menzies sheet and find "Monterey" written on back!

– G. Taylor, an assistant in the Dept. of Botany at the British Natural History Museum says Podostemum riple yet to be found in California, it having been found everywhere else. He has made a new genus Stylomecon for our Papaveraceous plant Papaver heterophyllum. He gives me a separate of this paper, which appeared, I believe, in the Journal of Botany (London). He

surprised me a bit by saying that he worked in the cryptogamic field– this matter of Stylomecon being a short foray into flowering plants.

– (Cont from bottom p. 127.) The Douglas specimen, cited second by Bentham in the diagnosis of Eriogonum fasciculatum, has puberulent perianths, that is puberulent outside. Cont. p. 130.

– Eriogonum foliolosum Nutt. There is, with this spm., a Nuttall label, in Nuttall's hand, "* Sta. Barbara". The perianth is glabrous! remarkably. The leaves are not excessively broad, but as broad as the average "fasciculatum", excluding the narrow-leaved type ↑Coastal of San Diego Co.

– "Eriogonum * rosmarini folium. Sta. Barbara." Nuttall, in his hand. Perianth glabrous!

- Eriogonum fasciculatum Benth. Leaves short, 10 to 11 mm. long, quite but not extremely narrow.

Cont. from p. 129. Geo. Barclay of the Sulphur Expedition collected this at San Diego, also.

A spm. of Parish 4473 (San Bernardino) which he distributed as var. congestum Parish is here. I take it this is E. polifolium.

— My last days at Kew are rather hurried. I go into London the morning of my last day. A constable called at my lodgings last evening telling my landlady to say that I was asked to call at Bow Street. This is a great central police station where the aliens registration office is situated and where I was compelled

to go to register at the end of two months residence. I went in early the next morning to Convent Garden station on the Piccadilly tube, threaded my way through the crush of produce vans and market carts and burden carriers to the police station and presented my passport and aliens registration book. The inspector found it in perfect order, and that I was "booked out" for Southampton sailing on Sept. 5. He then asked me why I had called. I told him. His records were searched and they finally called up the Kew Police station but could find no trace of any such order as I had described. The Inspector-in-Charge then took up the matter with me and apologized for the inconvenience which had been caused me. There-

upon I went to the American Consulate General in Cavendish Square and told my story to one of the American Consuls named Baker, asking him to call up Bow Street and confirm my story. He did so. There was an apology spoken – but the important point was made that I expected to sail from Southampton on Sept. 5 and that any hindrance should be made known now. The Inspector said there would be none.

So, early on the morning of Sept. 5, I left my lodgings at 60 West Park ave., Kew Gardens sta., went to Waterloo station, London, to wait for the special steamer train to Southampton. A great tide of humanity of all nationalities flows con-

tinuously through this great station and for the first time in many many weeks idle moments were given me to study the life that passed. Then the special was boarded, after "booking" my luggage, and after a few hours I was aboard the Canadian Pacific liner "Montclare". As she was warped slowly out of her berth I saw another great liner being "coaled" from a barge, the "baskets" being handled by laborers, sweating and black with coal dust. A steam winch lifted the baskets but the work must be very hard. The last time I noticed this operation was at Port Said where blacks performed the whole operation with small baskets.

— The passage across the ocean has not been at all rough, and only at times a little choppy. In the Gulf of St. Lawrence the seas are wonderfully fine, under a full sun.

[Cont. from p. 121.] someone is interested in spreading such rumours.]

Nevertheless, not liking the ocean I count the hours until we arrive at Montreal.

Sept. 13.- We arrive at 7 AM in the morning and I find that it is necessary to wait until 10:15 tonight to secure a sleeping berth on a Canadian Pacific train. It is raining hard but I go up to the McGill University campus. Its buildings make a fine group facing on a central quad.

of tree-covered green. The buildings are stone, the architecture of the traditional collegiate on the whole. One of the impressive buildings facing on Dominion Square is the Sun Life Assurance structure in whitish stone. I doubt if there is anywhere on the Pacific Coast a building comparable to this in majesty, sense of business utility, and in architectural satisfaction

From Montreal to Winnipeg the line is through forest of spruce, hemlock, birch. It does not look like a primitive forest but a fairly young second-growth one. At Port Arthur I was impressed by the series of large cake-like hills or circular bluffs

that stand in a row near the lake edge of Lake Superior.

From Winnipeg to the Rocky Mts. the rolling plains country is now covered with ranches, thin here, dense there. It was all but unmounted thirty-four years ago. How terribly ugly are the little towns, how ugly the farms, with their crude shacks or homely frame structures, nearly a tree, taking the country by and large. The towns are like those of the dusty hot San Joaquin plain used to be - though some still are as rough as ever. Usually, however, some trees have been planted in the San Joaquin to soften the ugliness.

In the Canadian Rockies mostly at night time. On the west drainage we follow down the Thompson River. The mountains that rise are for many miles mostly barren on their lower slopes. Kamloops, a town situated near the junction of the North and South Thompson rivers, is an old Hudson Bay Company's post. Down down, the Thompson is confined to a narrow rocky and gorge finally enters the Fraser River, which in its whitish waters, looks like a glacial stream. The Fraser often forms rapids and some of them seem as if difficult to run with a small boat or canoe. And so, late at night, we come to Vancouver and I transfer to the Great Northern C.P.R. station, show my passports,

and am, after midnight, on the way into the United States, traveling towards Seattle.

No. 15,679. Lactuca serriola
Waste ground, Revelstoke, Sept. 17, 1930.

No. 15,680. Arctium minus/Bernh.
With 15,679.

From Seattle we run to the Columbia River, striking first the Cowlitz River, which is itself a considerable stream, but is, to be sure inconsiderable compared with the mighty Columbia, along which we run for many miles to Vancouver, crossing Lewis River on the way, and the Columbia by a huge bridge to Portland.

The next morning early I look out of my berth window and see in the gray dawn the

extensive sage-brush plain east of the Cascades to which we have come during the night. The train swings around so as to give me a view of Mt. Pitt, into fine cone quite snow-covered. Then next Mt. Shasta, and so on into the cañon of the upper Sacramento River.

- Saxifraga peltata Torr.; abundant at Horseshoe Bend and forming a neat fringe along the water's edge to Lemoine, then frequent to Pitt-sta. (and a few miles below).
- Populus trichocarpa T. & G. V. Dunsmuir.
- Mentzelia laevicaulis T. & G. Antler.
- A wonderful place to study fire ravage - the semi-bare or quite bare mountain slopes about Motion sta., about Matheson sta., and some miles above and below. It is a large country and cannot be missed. Arctostaphylos viscida

is coming in on some slopes. The river itself runs deep in a narrow rocky gorge. Along its rocky banks is a continuous fringe of Carex ? ?
a species forming a heavy clump of leaves, the leaves bending over, hanging downward and forming a sort of mop resembling the head of hair of an old-time football player (1893). This species extends from Shasta Springs to Matheson sta., and perhaps lower down. It becomes more abundant as one goes down river from Shasta Springs, increasing as Saxifraga peltata decreases, and finally replacing that species entirely. (cf. F.B. 52:58).

And finally Berkeley sta. a little after 8½ p.m., and home!

– Eucalyptus trees I have thought of as difficult to burn. But see Cal. Dist. Newsletter vol. 11, no. 32, 700-acre grove at Niponio burned, Aug. 4, 1930.

– Sharks: 21 sold to Monterey Fish Products Plant betw. Nov. 22, 1930 and Feb. 13, 1931, average wt. = 2523 pounds. Largest 6580 lbs., 28 ft. long. Largest ever received there = 8600 lbs., few inches under 30 ft. – Sci. 73:496.

– Cont. from p. 89. I thought Seward a bit "offish". When Seward was in Berkeley ↑ I referred to Baker who was here in Berkeley Mar. 20, 1931. Seward was distinctly "sour" in relation to him. Some one else spoke of Baker at an evening gathering, Mrs. Anson Blake as I remember, and the same reaction occurred – only Mrs. Seward did the talking.

↑ in the latter part of Apr., 1932

Conn Creek*, Napa Valley

– In gravel bd, Verbascum thapsus L. Cauline basal leaves. see no. 15,706.

– In gravel bd, Mentzelia laevicaulis T. & G. First year rosette See no. 15,707.

No. 15,681. Verbascum Blattaria L. Stream bd.

No. 15,682. Eriogonum molestum var. davidsonii Rim bench. Fls. deep pink.

No. 15,683. Amaranthus californicus Wats. Stream bd. Veins and leaf margins white.

No. 15,684. Linaria elatine L.

Lower lip with 3 short broad equal rounded lobes at apex, the palate with 2 conspicuous saccate protrusions, twin-like. Lower lip yellow; upper lip purple on upper side, cleft at apex, the lobes rounded at apex. All the filaments hairy towards base on inside, but not densely. Anthers connivent in a set, black, hairy-tufted at one end. Upper pair of filaments the shorter a little. Spur slender, a little longer than lips. Lips 6-7 mm. long. Very much reduced sterile filament on upper side.

* See p. 143

No. 15,685. Mentzelia laevicaulis T. & G. Stream bd. Conn Creek *

No. 15,686. Eriogonum roseum var. rosatum Bth. Flo. yellow, turning reddish-brown; outer per.-segments oborate, the inner ones oblong-spatulate. Flood bd. Conn Creek.

No. 15,687. Polygonum californicum Pope Valley. Anthers burnt-umber color.

No. 15,688. Centromadia pungens Gray ssp. laevis (Nap. Co.) Pope Valley, dry hillsides.

No. 15,689. Navarretia * tagetina Greene. Pope Valley.

No. 15,690. Hemizonia luzulaefolia DC. Pope Valley.

— This trip with California Botanical Society. Four machines. Leader, Thomas Howell. / John

– * Conn Creek, at mouth of Sage Cañon, edge of Napa Valley, east side

* Perhaps the rain of a week since caused the capsules to swell, rupture, and disperse the seed.

Butts Cañon, ne. Napa Co.

No. 15,691. Cuscuta ~~californica var~~ brachy-
On Hemizonia luzulaefolia. Butts Cañon [calyx Yuncker.

No. 15,692. Trichostemma laxum Bth.
3½ m. of Aetna Spgs. in Butts Cañon.

No. 15,693. Quercus durata Jeps. var.
Oflm 8 ft. h. Butts Cañon.

No. 15,694. Quercus agrifolia Nee.
Butts Cañon.

No. 15,695. Quercus agrifolia Nee.
Butts Cañon.

These two individuals (15,694, 15,695) have remarkably slender acorns.

No. 15,696. Cuscuta subinclusa D. & H. On Rhododendron occidentalis. Butts Cañon,
Stigmas green. Corolla tubular, its lobes spreading. Scales erect, much fringed at apex.

No. 15,697. Rhododendron occidentale Gray. On the bottom

of a gulch (↑cañon). Butts Cañon.

No. 15,698. Trichostemma laxum Benth. Butts Cañon.

No. 15,699. Centaurium trichanthum Rob. Butts Cañon.

No. 15,700. Calycadenia pauciflora Gray dry hills. Butts Cañon.

No. 15,701. Cordylanthus pringlei Gray. Dry hills, a colony in an "open" in the brush, 4 to 4½ feet high. Bracts brown-purple! rather conspicuous. Cont. p. 146.

No. 15,702. Cuscuta subinclusa D. & H. On Heteromeles arbutifolia, and Salix sp.
Corolla white, tubular, its lobes spreading rotately. Anthers yellow.

No. 15,703. Cuscuta indecora Choisy.
On Senecio clevelandi and Trichostemma laxum (15,698).

Napa County, Oct. 19, 1930.

No. 15,704. Salix brewri Bebb.

Forming clumps, many-stemmed, about 4 to 5 ft. h. in Butts Cañon.

-Cont. no. 15,701. Annual. Fls. 1, or mostly 2 or 3 in a place.

No. 15,705. Verbascum blattaria L.

Forming dense flat rosettes in the gravelly flood bed of Conn Creek, with very thick fleshy roots. Collected at mouth of Sage Cañon.

- Cupressus macnabiana

Tree 8 ft. circ. at 2 feet, 40 feet high. Butts Cañon.

No. 15,706. ~~Verbascum thapsus~~ Ranunculus lobbii L. See p. 142. Conn Creek.

No. 15,707. (Discarded) Mentzelia laevicaulis T. & G. See p. 142. Conn Creek.

Berkeley, Nov. 1930.

-Cont. no. 15,348. Ranunculus lobbii

Pool in the salt marshes near Cordelia. Collected on one of my trips to Vaca Valley in 1930, perhaps April, more likely March. Cont. from v. 50, p. 38.

- Mrs. A.E. Wieslander says*: Quercus -semota forms a distinct band in the Tehachapis; its yellowing foliage made a marked impression me when there recently on reconnaissance. Cupressus goveniana forms a marked colony in the Santa Lucias n. of San Luis Obispo not far west of Cuesta Pass. Arctostaphylos pungens occurs in the Santa Lucias. It is a very marked species in S. Cal. and we recognize it readily in the field. Cupressus sargentii occurs in the Santa Lucias not far from Cupressus goveniana. Our men recognize the two as distinct things. We are picking

* See also p. 149.

up Tan Oak trail southward in the Santa Lucias. Arctostaphylos parryana was reported by the former Kern Co. High School instructor in his thesis as occuring in the Tehachapi Mts. — Nov. 14, 1930.

— Mr. Ralph Hoffman of Santa Barbara came in this morning. He says: "I have Eriogonum grande, rubescens, rudum from the islands in such form as to show they are distinct habitally and geographically; the yellow-fld grande, the reddish rubescens. I think you will change your mind about these when you see my material". He is making a special survey of the islands and goes out in a fisherman's boat to all of them. He thinks Jepsonia malvaefolia distinct

from J. parryi, the former 3 mm. long calyx tube, the latter 4 mm. long and (bowl shaped) more cylindric. — Nov. 18, 1930.

Hoffman spoke further of Ceanothus cuneatus and C. rigidus running together in the Lompoc region.

— A.E. Wieslander says that he cannot distinguish Ceanothus sorediatus and C. oliganthus in the Santa Barbara or southern region. "Up here", in central Cal., where there is only C. sorediatus he has no trouble. Cont. from p. 147.

— Today, Sunday, Nov. 23, I was invited to dinner at the R.W. Chaneys on Keith ave. There was present Capt. Jeb. Stuart of the U.S. Navy. Dr. Chaney said he had been down to the dock that morning to see the Coast Survey vessel, Northland,

come in from the far north. She was just returning from a northern summers cruise and a crowd of wives, children, sweethearts were on the dock to greet the officers and crew. Capt. Jones was in command and he had collected or caused to be collected a considerable amount of fossil shells on St. Lawrence Island in Bering Sea where the vessel touched. One of the prize things in the collection, - the prize thing, worth all the rest and more - was a leaf impression of Sequoia langsdorfii (the fossil being so-called, though in terms of the living species, it is Sequoia sempervirens). Dr. Chaney was extremely elated over this, sent at once a telegram to Dr. J.C. Merriam of the Carnegie Institution, because it represented a missing link, an intermediate station, between the Asiatic (or Old World) and the American (or New World) distribution of S. langsdorfii. In other words it has the greatest geographic significance - being a station which he had predicted and hoped to exploit himself.

Dr. Chaney left the room for a time and Capt. Stuart and I fell to talking. I told the story of Menzies and Vancouver, Baron Camelford flogged at the mast head and so on. I said that it was my inference that Vancouver was a very severe disciplinarian. Capt. Stuart said that the commanding officer in the navy and merchant marine both were, and were expected to be, tyrannous in treatment of the crew, severe, hard, unyielding in their rule; they

lorded it over their men with a rod of iron. Such was the ideal officer in the British shipping of that period. If a captain were friendly with his men he was not supposed to be fit to command. Nowadays in our navy there is a different ideal: an officer takes on a normal attitude; he is friendly with the crew but not familiar, preserving his dignity. Men in our navy will always follow where an officer leads.

H. B., Jr.,

Collins, Anthropologist, of the U. S. Natl Mus., was a member of the cruise of the Coast Survey vessel referred to p. 149 ante. He also took fossil plant material to Washington but said nothing of this to Chaney, altho he sent some material to Chaney.

– Dr. W. W. Cross, surgeon, formerly of Visalia says: There used to be a clump of "Black Redwood" (Sequoia gigantea) near Millwood. A man at Deer Park Creek can tell all about it.

– E. D. Merrill. Cont from vol. 50, p. 149. Robinson compared the case to W. B. Hemsley's work on the Mexican flora. Said Merrill sent his bundles of Philippine plants to specialists to be named but that he organized the results. Spoke of Hemsley having done much the same thing for the Mexican and Central American flora. It was plain from Robinsons argument, in extenso, that he was Merrills mainstay.

No. 15,708. Oxalis corniculata L. var. atropurpurea Planch. Berkeley, Nov. 25, 1930.

— Erodium moschatum L'Her. On May 28, 1903, W. W. Mott, '03, brought in a plant collected here in Berkeley which was enormous. It had an even dozen stems 5 to 6 feet long, leaves 14 to 15 inches long and a peduncle 18 inches long!! (Copied from an old memorandum.)

— Introduced plants. Can there be such a thing as native Erodiums in Western America? Truly native? In view of the geographic distribution of the main group the question is debatable.

— "Drought conditions caused subnormal growth or death to millions of trees in the forested areas of the West." — Cal. Region News Bulletin (R. 5 — H — 42) — Dec. 1930. Origin of fires in Los Angeles Co. l. c. (R 5 — H — 43).

— Jos. P. Tracy has just called: He says: "I have been on South Fork Mountain for the first time. It is a long hogs back of a mountain with a Forest Service road on it. Shasta Fir comes in on a corner of it; Xanthocium californicum grows there; and many other fine things." His sister Ethel, a teacher in the Eureka schools, still lives with him in the old home on I st. The sister Edith is married (Mrs. Frank Gregory) and lives in Berkeley. A third sister Harriet is Mrs. Graham. She and her husband now live at Willow Creek where he keeps store.

Tracy says Brodiaea ida-maia and B. congesta are found in the same localities and this fact would help to explain the hybrid said to arise from them. — Nov. 29, 1930.

Cont. from vol. 50, p. 164. Walter Dean came into the herbarium one day while I was there. He has the garrulity natural to old age. After he went out Dr. Robinson said: Long ago Dr. Serenо Watson remarked "There goes a botanist who will never amount to anything. He can never make up his mind."

— Collecting. J. T. Howell, a most careful botanist, copies his field notes at home to prevent possible loss of a book in the field. This is an advantage. However, so doing, one does not:

1. Take as full notes.
2. As many notes of all sorts of things.
3. Secure as great accuracy.
4. Save as much time

As by carrying the book in the field. Having it in the field, it is always ready to receive notes. One may think he will remember certain things and fail to do so. One could take sheets in the field, fill them, leave them at home, and eventually bind into a volume. — Nov. 30, 1930. I have lost three field books, recovering each. All my field books carry a "Lost" and "reward" notice.

— Ned Blake says: Judge Alvarado tells me that along the North Berkeley Hills there was in early days three times as much woody growth as now, — on north from Boswells, that is scrub oaks in the canons, Ceanothus thyrsiflorus. The growth of the latter is very rapid.

Mrs. Bruce Blake concurred as to the rapid growth of Ceano-

Berkeley Hills

thus thyrsiflorus, which is valued in that district for firewood. The needs of the early inhabitants for fuel caused marked changes in the hills - a depletion of the woody growth. At the Blake homes there is, said Anson Blake, one Maul Oak (Quercus chrysolepis) individual, the only one known to him this side of the range of hills. - Dec. 13, 1930.

- Went up Skyline Ridge this afternoon, around the head of Strawberry Canon on the high shoulders and so to Grizzly Peak. The high lateral ridges at head of Strawberry were gay with Brodiaea capitata, Ranunculus californicus.

no. 15,709. Lygethia helenioides (DC.) Nutt. Fine gray colonies, two only a yard or two across, on face of Grizzly 600 feet below top. [south

No. 15,710. Oenothera graciliflora H.B.K. with 15,709.

No. 15,711. Zillaea erecta with 15,709

No. 15,712. Arenaria douglasii Fenzl. Forked gland appearing to have a very slender base or stipe below the forked portion. Face of Grizzly Peak, s. slope. With 15,709.

Vacaville

March 31, 1931.

No. 15,713. Senecio

Frank Dickie, the rancher, says this plant has come in to this district in the last 3 or 4 years.

— called this evening on Mrs. S. B. Parish who said: "When Dr. and Mrs. Asa Gray came to visit us in 1885 he was a quite unwell man. He had a cold and was nursing it. The Grays had come to us from San Diego where Daniel Cleveland looked out for them. Dr. Gray sat by the fire in order to keep warm. The wood fire had to be tended constantly. When I put a stick or more on the fire he would direct me in regard to it, one more or one less. When Mr. Parish put on a stick he said nothing — gave no directions. This little difference amused me very much: Mr. Parish was a man; I was a woman!

From San Bernardino the Grays went to Santa Barbara, then

to San Francisco; there probably to the General Bidwells at Chico.

Two stories are told of the peculiarities of Mrs. K. Brandegee — and her untidiness in dress. On one occasion, having been out collecting, she sat down on the street curbing to wait for a car. A passerby, seeing her, approached and said: "Here, poor woman, take this nickel and ride. Do not try to walk further!"

On another occasion she went into a drinking place and ordered beer, having come from a long walk. The barkeeper refused payment, struck by her destitute appearance, and said: "No, keep it, good woman, you need it worse than I do."

— March 25, 1931. See p. 162.

— After Mrs. Brandegee's death one felt rather more fully for her than when living. Those persons whom she counted as her best friends did nothing for her. She called Hall, spoke of H.M. Hall, as "the only botanist in California." Miss Alice Eastwood was also extremely friendly to Mrs. Brandegee, but became silent after the funeral. Hall, likewise, refused to write a memorial. — See p. 161 ante. Mrs. B. was then safely dead!

No. 15,714. Tamarix tetranda Pall. Petals 4; stamens 4; styles 4, short, with subterminal stigmas. From the old trees at Little Oak ranch, Vacaville, — trees now sixty-one years old. — Mar. 31, 1931.

— Mr. S. B. Parish, in the early days of Zoe, sent a contribution to that journal which was attacking Greene. Professor Greene wrote from Berkeley saying, in effect, to Parish: "Why should you stand in with or support that woman", meaning Mrs. Brandegee, Zoe being her personal organ. Parish replied that that was not a question that should come up between friends. The above from Mrs. S. B. Parish, Mar. 25, 1931. — The above incident indicates that Greene did care for the attacks of Zoe, tho' to my young eyes in that day seeming not to care. Cf. 38:83.

Maxon of the U.S. Nat. Herb. told me at Kew last summer this: Greene must have suffered

Nortonville, Contra Costa Co.

deeply from the aspersions on his character, the awful charges against his good name circulated by Mrs. Brandegee tho not published.

— went to Nortonville and into hills a mile south; then to Oakley; then to canon leading west to mt. 820.

No. 15,715. Microseris linearifolia

Sandy field, scattered Live Oaks. Oakley, Contra Costa Co., 60 ft.

No. 15,716. Rhus diversiloba T. & G.

Nortonville.

No. 15,717. Microseris linearifolia

Nortonville. Sandy slope. in the hills.

No. 15,718. Baeria

Nortonville, adobe flat in the hills.

No. 15,719. Evax sparsiflora

This composite grew on high adobe in a little flat in the hills. Nortonville.

No. 15,720. Lepidium latipes Hook.

adobe flat in the hills. Nortonville.

No. 15,721. Ptelea crenulata Greene.

near Nortonville

Canon; fls. 5- or 4-merous on same branchlet even.

No. 15,722. Alchemilla occidentalis Nutt. ~~arvensis Scop.~~

adobe flat. Nortonville.

No. 15,723. Gilia capitata ssp. achillaefolia Benth. with 15,715 = G. ~~staminea~~ grandiflora

No. 15,724. Lupinus albifrons Bth.

Shrubby. With 15,715

No. 15,725. Phacelia tanacetifolia Bth. Romain, Stanislaus Co., 159 ft.

No. 15,726. Pinus coulteri Don

On the low ridges s. of Nortonville. Trees 40 to 45 feet high. Branchlets 3/4 to 1 1/4 inches thick, that is ultimate foliage branchlets. Needles erect or spreading, the fascicles clothing the branchlets 1/2 to 1 foot very densely and making heavy

tufts of foliage. Bark in color and fissuring not appreciably different from that of Pinus sabiniana, which is mixed with it a little. The buckskin color of the cones is a feature not found in Pinus sabiniana. See cones in cone collection.

No. 15,727. Pinus sabiniana Dougl.

Leaves markedly drooping in many cases, not so or noticeably so in other trees. Foliage thin as compared with P. coulteri.

The foliage in P. coulteri as seen at Nortonville is not dark green but a sort of blue-green, that of P. sabiniana is gray.

— From Oakley drove southerly to Vernalis, Stanislaus Co., thence into a cañon leading westerly towards Mt. Oso. Hills very dry in this region, the south

slopes looking as if there had been no vegetation at all this season. Turned back at a gate marked "No trespass" with the names "Joe Alameda" and "R. G. King."

— Quercus wislizenii occurs as a tree in the hills south of Nortonville, say about 1300 feet altitude. It has the characteristic leaves of this species and young nubs of acorns on 2-year old wood. Quercus agrifolia I found about Oakley on the sandy flats at about 50 or 60 feet. It has the characteristic cupped leaves of agrifolia and is without much doubt that species.

— Richard St Barbe Baker, Assistant Conservator of Forests, Nigeria, called in March sometime when I was away.

— Professor L. A. Abrams, of Stanford, called this afternoon. He wanted to see my type of Berberis dictyota which he regards as a good species. I showed him also some specimens of Arenaria in which he is interested.

He said that at Stanford, that elaboration of administration had gone very far, just as it has here. He also referred to the fact that students deliberately determine against working for the highest standards, that you (a student) are told not to work too hard, that you raise the standards unduly if you do. He has a daughter who is a junior and thus knows much of the inside mind of the students.

— Hawkins, Univ. of Minnesota, called in the last month, when I was not in. Secretary reporting: "he likes your books".

— Distribution of species of seed plants in California, in relation to Sequoia sempervirens Endl. — An amazing number of species come into association with the Redwood at some one point. Consider the Red Bud, Cercis occidentalis, a dry country shrub or small tree approaching the Redwood very closely at Ukiah! and at that place only. If it is to approach the Redwood at all, why not in the South Coast Range country — Santa Lucia Mts., where it would be more at home climatically, it would seem, but does not occur! Compare the Redwood in the Oakland Hills — its associates — and especially its lack of associates, i.e. the characteristic associates of

the Mendocino and Humboldt areas. See the Berkeley Hills Note-book, p. 7.

— Parosela spinosa Hal. "Largest smoke-tree forest in the world" Palm Spgs. of San Jacinto. A tree at Smoke-tree Ranch 25 ft. h., Trees mostly less than 10 ft. h. — Touring Topics, Dec. '30, p. 17.

Sacramento County, 12 Apr. 31.

— Traveling easterly from Sacramento on the Placerville road we parallel the railway track. This enclosed railway right of way here, as elsewhere in California, makes a preserve for native plants which is of great importance. Such strips are never grazed and seldom cultivated or disturbed. The areas represent assests of very considerable importance to the botanist. Our collecting at Mills station was done in a railroad right of way.

n. Sacramento County, Apr. 12, 1931.

No. 15,728. Layia glandulosa (H. & A.) Hook. Rays sulphur yellow with white tips. open clay land.

No. 15,729. Trifolium tridentatum Lindl. Open clay land.

No. 15,730. Baeria open clay land.

No. 15,731. Navarretia leucocephala Bth. Low spots.

No. 15,732. Sanicula bipinnata H. & A. Clay soil

No. 15,733. Trifolium gracilentum T. & G. Loamy bank.

No. 15,734. Achyrachaena mollis Schauer. Clay flats.

No. 15,735. Brodiaea Clay flats

No. 15,736. Erodium botrys Bertol. It supplants Erodium cicutarium in this district.

Folsom, Sacramento Co.

No. 15,737. Lupinus microcarpus Dougl. Mills sta. Clay flats.

No. 15,738. Microseris acuminata. Clay flats.

No. 15,739. Eryngium. Water pool.

No. 15,740. Lotus micranthus Bth. Clay flats.

No. 15,741. Trifolium microcephalum Pk. Clay flats.

No. 15,742. Trifolium barbigerum Torr. Clay flats.

No. 15,743. Plagiobothrys fulvus Jtn. var. campestris Jtn. Cor. extremely small. Clay flat.

No. 15,744. Allocarya greenei Greene. Clay flat.

No. 15,745. Trifolium amplectens T. & G. Clay flat.

No. 15,746. Trifolium variegatum Nutt. Clay flat.

No. 15,747. Juncus. Clay flat.

300 ft. Apr. 12. 1931.

No. 15,748. Ranunculus. Clay flats.

Drove to the foothills of the Sierras east of Sacramento. In the party my research assistant, Miss Ethel Crum, and Mrs. H. P. Bracelin. The country looks well just now, this mid-April, in spite of the scanty rainfall. Our first stop was on the Placerville road one-eighth mile out of Folsom, though on the plains east of Sacramento we had stopped at Mills sta.; naked rolling land.

— Cont. from p. 26 at middle. This is the garden which E. D. Merrill took a hand in promoting as director. He was skilful enough to get leave from the Directorship of College of Agriculture at Berkeley for the purpose.

600 ft.

No. 15,749. Eschscholtzia lobbii Greene
New York Creek. Hillslope, sandy. 500 ft.

No. 15,750. Linanthus (L. androsaceus) pierii-florus Greene. Gregarious on a slope, with only a few scattered oaks, giving a pale or pink creamy tint to the area. The corolla is white but the cluster of stamens may account for the creamy color. At a distance we could not guess what the broad colonies of it were.

No. 15,751. Linanthus bicolor (Nutt.) Greene. Fls. crimson. Open hillslope.

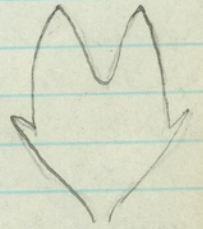
No. 15,752. Tropidocarpum gracile Hook. Open valley flat.

No. 15,753. Lupinus bicolor Lindl. var. micranthus Steud. Open valley flat.

No. 15,754. Sagina apetala Ard. Connate bases of opposite leaves not scarious, not ciliolate. Hillslopes, sandy soil, 600 ft.

No. 15,755. Silene californica Durr.

Petals crimson, cleft somewhat mule-ear wise; just below middle on each side is a sharp small tooth. 800 ft.



Petal-diagram.

No. 15,756. Trifolium tridentatum Lindl. var. watsonii Jepson. 800 ft. Stipules long-sheathing, the sheaths crimson! and therefore the stems alternately zoned with bright green and crimson. Openly wooded slope n. slope.

No. 15,757. Lomatium marginatum C. & R. Scattered individuals 800 ft.

Salmon Falls, Eldorado Co., 800 ft.

of this yellow-flowered umbellifer were fairly frequent on the openly wooded steep north slopes a mile or perhaps two upgrade from Salmon Falls.

No. 15,758. Saxifraga californica Greene. Loamy steep openly wooded north slope.

No. 15,759. Lupinus latifolius Agardh. Openly wooded steep north slope above Salmon Falls. Stems marked red-brown, 5 ft. tall (the tallest). Keel ciliate on upper margin at middle only. Calyx strigulose. Herbage thinly strigulose. Banner pale blue; keel pale blue and whitish; keel whitish.

Apr. 12, 1931.

Pilot Hill, 1300 ft.

No. 15,760. Nemophila maculata Bth. Moist flat.

No. 15,761. Collinsia sparsiflora F. & M. var. collina Newsom. Moist flat.

No. 15,762. Gilia gracilis Hook. This polemoniaceous plant grew in a small colony a yard across in a grassy field by the village of Pilot Hill. = var. villosa Jepson & Hoover.

No. 15,763. Lupinus nanus Dougl. var. vallicola C.P. Sm. With 15,762.

No. 15,764. Lupinus benthamii Hel. (L. leptophyllus Bth.) Mountain slope. Leaflets spreading equably in a circle, horizontally, a whitish or light spot at center.

No. 15,765. Lupinus See p. 178. New York Creek. = L. nanus Dougl. var. apricus C.P. Sm.

— The country is very delightful now. The charm of the foothills overcomes one. There is in this few weeks of April time the essence of youth in the green slopes and tender foliage, a vernal sparkle, rare sylvan delights. We turned in at a ranch gate and stopped to survey the open slopes densely covered with Lupinus gentke no. 15,765 and Plagiobothrys, the blue of the Lupine and the white of the other making a scene of color that covered about 80 or 100 acres. From this point we could look back and down into the basin of Salmon Falls and beyond to the broad bulk of Pilot Hill, the highest point in the landscape.

Salmon Falls is a tiny hamlet of 2 or 3 houses and a school. The old-time store, going back to gold days, was, they said, built of lumber brought around Cape Horn from the eastern United States. It has the good-looking "look" of early day structures in the foothills.

Pilot Hill village has a few houses only. The old hotel and stage station is a large structure built in 1852. It is still interesting to look at — a large building, in fairly good repair, considering its age.

Near Pilot Hill is the ranch of Al. Layne, brother of Mrs. Kiser Brandegee. He is said to have been an eccentric; would not let his children go to school; but his wife took the children to Oakland and educated them. She is still living;

resides in San Francisco. Mrs. B. had another brother and perhaps three sisters. Mrs. B. as Mary Layne went to the Salmon School. The Layne place, home of her father and mother, is on the Green Valley road. The Layne home burned. The elder Laynes were buried on the place, a rose-bush marking the grave. When the present owner, Dixon, acquired the place, he had some negotiations with the Layne family about the graves. Mrs. Foster, who lives in a neat cottage at Pilot Hill, knows something of the family. A family at Salmon Falls is Miller. Mrs. Miller knows something of the history of the village. Her father-in-law, Miller, was introduced to us as the elder but he knew nothing or else

age had quite dimmed his faculties.

— Cercis occidentalis Torr. Pilot Hill, in flower!

— Through this country one sees the trunks of Pinus sabiniana ringed. This must be, I take it, for increasing pasturage. The trees will soon die, the root-system will rot soon, and in a few years the trees will fall.

— Hypericum perforatum L. In pastures at Pilot Hill village, the new shoots now coming from the roots, last year's erect stems marking well the plant in the fields.

— Drove to the Little Oak Ranch, Vacaville, today, May 10. Ailanthus glandulosus Desf. is freely spontaneous near the Cooper School, between Elmira and Vacaville. Tragopogon porrifolius L. occurs

by Colburn's Corner, between the ranch and Vacaville. The first time noted in this region. Also occurs below Vanden (on road to Suisun) about 2 miles. Returned to Berkeley May 12. – Miss Abby Lou Waterman, Waterman Ranch, Barstow, is in Berkeley for a visit with relatives, Roz talked of the desert as usual. She spoke of the Dalea as dead things that she knew when first going to the desert – and then behold after three years came a rainy year and the Dalea bloomed; she saw for the first time their rich purple flowers!! The Mexicans, she says, call Dalea spinosa by the name Ramocenisa, that is "Branches of Ashes".

No. 15,766. Ranunculus

Lawn by South Hall on East side. Petals burnished gold.

Color Variation.

– A striking instance of color variation without other change is afforded by my field experience with no. 8484, Lupinus longifolius Abrams, blue-flowered, the no. 8485, collected at the same time and place being exactly like in detail, even to the purple-tipped keel, save that the flower as a whole was pink. But see my notes: 37: 17-18, ante.

Berkeley, July, 1931.

— The University Herbarium is a-flutter with talk — the workers there just having learned of the marriage of Miss Lucille Roush, Associate in Botany, and Mr. H. L. Mason, Associate in Botany. They were married May 13, which was Commencement Day at the University. On May 7 was held in Berkeley a meeting of the California Botanical Society, re. matters of incorporation. Mason was not present, and I think that I remarked to Professor Peirce that Mason was busy preparing for his trip to the arctic. He left that evening or the next morning. — July 23, 1931. But see below: Now comes along Prof. R. W. Holman who says they were married May 15. — Professor W.A. Setchell, on Aug. 18, 1931, tells me this: He does not regard

(Cont. p. 185)

Berkeley Hills

March 21, 1931.

— Brodiaea capitata very common on the ridge just east of Sugar Loaf, the slopes gay with it. Also: Perezdarium tricuspidatum, Microseris fabacea, Ranunculus californicus, Lithophragma affinis, Nemophila menziesii, Mentzelia perfoliata.

---

the action of Mr. Mason and Miss Roush as "straightforward." There is a rule against two people in one department holding positions if they are married. Setchell said to Mrs. Mason when she returned: "It looks as if you were trying to evade the rule."

Berkeley

– Rainfall in June, fourth rainiest June in history of station, 44 years, 0.86 in. Second driest year, 11.58 inches, in history of station. – U.C. Meteorological Record, June, 1931.

– Rains broke Friday, Oct. 23, 1931

– Rains broke hard, Nov. 14, 1931

– Rains cold and temperatures from Dec. 15 to near end of Feb. 1932.

**Cont from bottom p. 92. E. B. Babcock has recently sent to H.L. Mason, my Forest Botany assistant, a collection of common cultivated things (plants) to determine. He is incapable of determining them himself, because he has no real knowledge or experience as a systematic botanist. – Nov. 14, 1931

– Prunus subcordata Bth. See Belknap Goldsmith in litt. Aug. 23, 1910.

– Collecting. Specific locality not regarded as necessary in earlier day by many men. W. C. Cusick has a printed label for Astragalus canadensis var. mortoni Wats. No. 2509. He has the date of collection, but nothing more than "Eastern Oregon Plants." L. F. Henderson has similar labels. J. G. Lemmon thought it important to give the range of the species on his label. When he did so he rarely gave the exact locality of the particular spm.

– Cont. p. 190.

– Clements & Hall's monographs of Atriplex, Artemisia and Chrysothamnus are good careful pieces of work. The implication is that they cultivated experimentally the species treated in the work. I myself was exceedingly sceptical that

they had done so. Now I have a little light upon the matter, in fact a good deal. H. L. Mason said in Phaenogamic Seminar this morning that Hall cultivated just three of the species of Artemisia that no results were had, at least at that time from Chrysothamnus, because the species do not take readily to cultivation. – Nov. 5, 1931.

– Collecting. J. G. Lemmon had the very bad habit of printing his residence on his herbarium or plant labels. So did Congdon put his home town on his printed label. The result is that plants when distributed widely spms. of are sometimes attributed to some home address as if it were the station of collecting.

Cont. from middle p. 188. – It helps to keep ones [collecting] sheets or folders in order and so preserve a check against localities, so very important if [exact] one have in the field a supply of stout cord – a genual service cord that does not weigh much, does not take up much room – large enough for nearly every purpose about camp.

A botanical pick is indispensable. For so many years have I practiced putting my pick under the straps on the side of my press that I have seldom in my life lost a pick. It has become a sort of ritual – unconscious but a real ritual.

Small but representative plants may be taken if note is made of general

size. One cannot obviously take a whole oak tree; but representative parts may be taken. But where [herbaceous] plants are very large too large, better select a whole plant that is small but [sufficiently] representative. [to go into folder]

Woon-Young Chun
Botanical Institute, Sun Yatsen
University, Canton, China.

G. Taylor.
British Museum (nat. Hist.)
Cromwell Road.
London. S.W. 7

J. E. Dandy,
British Museum (Natural History),
Cromwell Road,
London, S.W.7.

N.Y. Sandwith,
The Herbarium,
Royal Botanic Gardens,
Kew. Surrey.

– A. P. Balfour, Sutton's Seed Trial Grounds, Slough, Berkshire.

– Phillips, Dr. John. See p. 35 ante.

— Continued from p. 45 at bottom *. Miss Gilpin said they had been much occupied getting through the press, or making ready for it, a new edition of Mr Robinson's "The English Flower Garden". She remarked that it had been a heavy task and on account of his age would not be attempted again. [I now notice in Bowes & Bowes Miscellaneous Books Cat. no. 478 (1936) a notice of the "15th [last]" edition. — Apr. 8, 1936. Compare vol. 44, p. 121, ante.]

— Cont. from p. 35. He has Dr. Moss' place at Johannesburg — "the best botanist in South Africa" acc. Dr. A. L. Grant. He has been engaged in ecological research on the tsetse fly problem in Tanganyika Territory, British East Africa. Now Professor of Botany at the University of Witwatersrand, Johannesburg. *

— Cont. from p. 75. He is, I think, a brother of John Boynton Priestley, the popular English author, author of The Good Companions, The Old Dark House, Brief Diversions, etc.

* Probably E. Percy Phillips is his brother, Principal Botanist, Division of Plant Industry, Pretoria. In my files is his paper: "A brief historical sketch of the development of botanical science in S. Afr."

Fire in California.

- The Role of Fire in the California Forests (U.S.D.A. Bull. 1294,* — 1924). S. B. Show & E. I. Kotok.
- Timber Growing and Logging Practice in the Californian Pine Region (U.S.D.A. Bull. 1402 — 1926.) By S. B. Show. Note on fire.
- Cover-type and Fire-Control in the National Forests of California, by S. B. Show & E. I. Kotok. (U.S.D.A. Bull. 1495, — 1929).
- Veld Burning Experiments at Groenkloof. E. P. Phillips. Second Report. (Union of S. Africa. Science Bulletin no. 17.)
- Notes on Veld Burning, R. Marloth. (S. African Journal of Science. 21: 342 - 345, — 1924) The question of
- Some Observations on the effects of Bush Fires on the vegetation of the Cape Peninsula. M. R. Levyns. (l.c. 21: 346 - 347.

* See Bibliog. p. 80.

- Destruction of Indigenous Vegetation by Burning on the Cape Peninsula. N. S. Pillans (l.c. 21: 348 - 352)
- Ecology, 7: 107.
- Lecontes paper (Bull. Cal. Acad. 2: 515 — 1887) bears on the geological record.

Cont. from p. 121 at *.

My records show that I gave him a copy of my Manual of the Flowering Plants of California, Flora of California Vol. 2, Parts 6 & 7 of Vol. 1, at least. But I presented them with no thought of return and the matter is all right with me. I also gave him my Silva of California long ago. — W.L.J., June 28, 1937

Western Botanists.

- E. B. Copeland is the author of two monographs on Old World plants: one on Rice, the other on Coco-nut.

Kew List.

- Bean, W. J., ex-Curator of Gardens
- Dallimore, Mr. W., Curator of Wood Museum.

Kew List

- Dr. A. W. Hill, Director
- Dr. T. F. Chipp, Assistant Director.
- A. D. Cotton, Keeper of the Herbarium
- S. A. Skan, Assistant
- Dr. J. A. Sprague, Deputy Keeper.
- Miss E. M. Wakefield, Assistant.
- C. V. B. Marquand, "
- V. S. Summerhayes, "
- Miss M. L. Green, "
- J. Hutchinson, "
- J. M. Dalziel, "
- C. A. Smith, "
- Dr. W. B. Turrill, "
- F. Ballard, "
- C. E. C. Fischer, "

- E. Nelmes, Sub-assistant (Library).
- N. Y. Sandwith, Temporary Assistant.
- A. R. Horwood, H. K. A. Shaw, Temporary Botanists.

The above is not a full list nor in correct order.

- W. Taylor, Garden Curator.

Prof. Dr. G. Schellenberg
Göttingen (Germany)

C. A. Smith
National Herbarium,
Pretoria, Transvaal,
South Africa.

M. Navashin
Piatnizkaya St. 48
Moscow, 17 (Russia)

M. A. Zaghloul,
Botanical Section,
Giza,
Egypt.

Dr. G. Einar Du Rietz
Dalgatan 2 B
Uppsala, Sweden

— Geneva!

The place to stay in Geneva is the Hotel Victoria, facing the lake front. It is very clean, very reasonable, excellent food, — says Dr. C. Epling.

— La Phytographie ou l'art de decrire les vegetaux. Alphonse de Candolle.

— Scales of tipping in France.

Saying, "Merci beaucop, monsieur" — grossly over-tipped.
" "Merci beaucop," — much too much.
" "Merci," quite enough.
" nothing, just about right.

In some places in France 10 per cent is added to the bill for tips.

— Names of the uniformed porters in the Kew Herbarium:
- Ladd, head porter.
- Porter, porter.
(Yorlick, shelf, mom).

202. Addresses – Kew, England

– Dr. & Mrs. F. A. Sprague,
6 Gloucester Road, Kingston.
(Martin, Peggy, Ruth.)

– Dr. Wilson, 2 Emmerdale Road, Kew.

– A. G. Southcombe, M.D.,
L.R.C.P. Lond., M.R.C.S. & D.P.H. Eng.
83 Sidney Road, South Hackney, N.E., London.

– A. E. Miles, Esq., 66 Cedars Road,
Hampton Wick,
who lives near Timothy Bennet memorial, Bushy Park.

– E. Markham, Head forester, Gravetye Manor, East Grinstead, Sussex, England.

– Miss E. Vivien, passenger on Rochambeau, teacher of french at college, Penn.

– Richard St. Barbe Baker, Cambridge, forester, author of "The Brotherhood of the Trees!"

– H. N. Ridley, Cumberland Road, Kew.

– Mr. Gilbert Carter, Director of the Botanic Garden, Cambridge, England.

– Robt. E. Woodson, Missouri Bot. Gard.

– H. Miller, Athens, Ga., – re. his Amelanchier spms.

Field Memoranda

– Ribes victoris. "Overhanging Laguinitas Creek, N. side, in a grassy mdw., 200 or 300 yards from outlet of the lake. Coville says now overhung by a tree. I think willows around it when I was there" – V. K. Chesnut in litt. 1930.

– Colorado Desert items. See end vol. 49.

– Misc. items. See end vol. 49.

– Flowering list. " " " "

– S. L. Gillan, Wheeler Ridge.

– Redwood, tree in Bull Creek flat, 375 ft. acc. Motor Land, Oct. 1928, p. 22. Photo shows a roadside tree.